FUJITSU

SPARC Enterprise T5440 Server Product Notes

Manual Code: C120-E508-11EN,
Part No.: 875-4384-20
November 2011, Revision A

Copyright © 2008, 2011, Oracle and/or its affiliates and FUJITSU LIMITED. All rights reserved.

Oracle and/or its affiliates and Fujitsu Limited each own or control intellectual property rights relating to products and technology described in this document, and such products, technology and this document are protected by copyright laws, patents, and other intellectual property laws and international treaties.

This document and the product and technology to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of such product or technology, or of this document, may be reproduced in any form by any means without prior written authorization of Oracle and/or its affiliates and Fujitsu Limited, and their applicable licensors, if any. The furnishings of this document to you does not give you any rights or licenses, express or implied, with respect to the product or technology to which it pertains, and this document does not contain or represent any commitment of any kind on the part of Oracle or Fujitsu Limited, or any affiliate of either of them.

This document and the product and technology described in this document may incorporate third-party intellectual property copyrighted by and/or licensed from the suppliers to Oracle and/or its affiliates and Fujitsu Limited, including software and font technology.

Per the terms of the GPL or LGPL, a copy of the source code governed by the GPL or LGPL, as applicable, is available upon request by the End User. Please contact Oracle and/or its affiliates or Fujitsu Limited.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Fujitsu and the Fujitsu logo are registered trademarks of Fujitsu Limited.

All SPARC trademarks are used under license and are registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon architectures developed by Oracle and/or its affiliates. SPARC64 is a trademark of SPARC International, Inc., used under license by Fujitsu Microelectronics, Inc. and Fujitsu Limited. Other names may be trademarks of their respective owners.

United States Government Rights - Commercial use. U.S. Government users are subject to the standard government user license agreements of Oracle and/or its affiliates and Fujitsu Limited and the applicable provisions of the FAR and its supplements.

Disclaimer: The only warranties granted by Oracle and Fujitsu Limited, and/or any affiliate of either of them in connection with this document or any product or technology described herein are those expressly set forth in the license agreement pursuant to which the product or technology is provided. EXCEPT AS EXPRESSLY SET FORTH IN SUCH AGREEMENT, ORACLE OR FUJITSU LIMITED, AND/OR THEIR AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND (EXPRESS OR IMPLIED) REGARDING SUCH PRODUCT OR TECHNOLOGY OR THIS DOCUMENT, WHICH ARE ALL PROVIDED AS IS, AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. Unless otherwise expressly set forth in such agreement, to the extent allowed by applicable law, in no event shall Oracle or Fujitsu Limited, and/or any of their affiliates have any liability to any third party under any legal theory for any loss of revenues or profits, loss of use or data, or business interruptions, or for any indirect, special, incidental or consequential damages, even if advised of the possibility of such damages.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Please
Recycle

Copyright © 2008, 2011, Oracle et/ou ses sociétés affiliées et FUJITSU LIMITED. Tous droits réservés.

Oracle et/ou ses sociétés affiliées et Fujitsu Limited détiennent et contrôlent chacune des droits de propriété intellectuelle relatifs aux produits et technologies décrits dans ce document. De même, ces produits, technologies et ce document sont protégés par des lois sur le copyright, des brevets, d'autres lois sur la propriété intellectuelle et des traités internationaux.

Ce document, le produit et les technologies afférents sont exclusivement distribués avec des licences qui en restreignent l'utilisation, la copie, la distribution et la décompilation. Aucune partie de ce produit, de ces technologies ou de ce document ne peut être reproduite sous quelque forme que ce soit, par quelque moyen que ce soit, sans l'autorisation écrite préalable d'Oracle et/ou ses sociétés affiliées et de Fujitsu Limited, et de leurs éventuels bailleurs de licence. Ce document, bien qu'il vous ait été fourni, ne vous confère aucun droit et aucune licence, expresses ou tacites, concernant le produit ou la technologie auxquels il se rapporte. Par ailleurs, il ne contient ni ne représente aucun engagement, de quelque type que ce soit, de la part d'Oracle ou de Fujitsu Limited, ou des sociétés affiliées de l'une ou l'autre entité.

Ce document, ainsi que les produits et technologies qu'il décrit, peuvent inclure des droits de propriété intellectuelle de parties tierces protégés par copyright et/ou cédés sous licence par des fournisseurs à Oracle et/ou ses sociétés affiliées et Fujitsu Limited, y compris des logiciels et des technologies relatives aux polices de caractères.

Conformément aux conditions de la licence GPL ou LGPL, une copie du code source régi par la licence GPL ou LGPL, selon le cas, est disponible sur demande par l'Utilisateur final. Veuillez contacter Oracle et/ou ses sociétés affiliées ou Fujitsu Limited.

Cette distribution peut comprendre des composants développés par des parties tierces.

Des parties de ce produit peuvent être dérivées des systèmes Berkeley BSD, distribués sous licence par l'Université de Californie. UNIX est une marque déposée aux États-Unis et dans d'autres pays, distribuée exclusivement sous licence par X/Open Company, Ltd.

Oracle et Java sont des marques déposées d'Oracle Corporation et/ou de ses sociétés affiliées. Fujitsu et le logo Fujitsu sont des marques déposées de Fujitsu Limited.

Toutes les marques SPARC sont utilisées sous licence et sont des marques déposées de SPARC International, Inc., aux États-Unis et dans d'autres pays. Les produits portant la marque SPARC reposent sur des architectures développées par Oracle et/ou ses sociétés affiliées. SPARC64 est une marque de SPARC International, Inc., utilisée sous licence par Fujitsu Microelectronics, Inc. et Fujitsu Limited. Tout autre nom mentionné peut correspondre à des marques appartenant à d'autres propriétaires.

United States Government Rights - Commercial use. U.S. Government users are subject to the standard government user license agreements of Oracle and/or its affiliates and Fujitsu Limited and the applicable provisions of the FAR and its supplements.

Avis de non-responsabilité : les seules garanties octroyées par Oracle et Fujitsu Limited et/ou toute société affiliée de l'une ou l'autre entité en rapport avec ce document ou tout produit ou toute technologie décrits dans les présentes correspondent aux garanties expressément stipulées dans le contrat de licence régissant le produit ou la technologie fournis. SAUF MENTION CONTRAIRE EXPRESSÉMENT STIPULÉE DANS CE CONTRAT, ORACLE OU FUJITSU LIMITED ET LES SOCIÉTÉS AFFILIÉES À L'UNE OU L'AUTRE ENTITÉ REJETTENT TOUTE REPRÉSENTATION OU TOUTE GARANTIE, QUELLE QU'EN SOIT LA NATURE (EXPRESSE OU IMPLICITE) CONCERNANT CE PRODUIT, CETTE TECHNOLOGIE OU CE DOCUMENT, LESQUELS SONT FOURNIS EN L'ÉTAT. EN OUTRE, TOUTES LES CONDITIONS, REPRÉSENTATIONS ET GARANTIES EXPRESSES OU TACITES, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON, SONT EXCLUES, DANS LA MESURE AUTORISÉE PAR LA LOI APPLICABLE. Sauf mention contraire expressément stipulée dans ce contrat, dans la mesure autorisée par la loi applicable, en aucun cas Oracle ou Fujitsu Limited et/ou l'une ou l'autre de leurs sociétés affiliées ne sauraient être tenues responsables envers une quelconque partie tierce, sous quelque théorie juridique que ce soit, de tout manque à gagner ou de perte de profit, de problèmes d'utilisation ou de perte de données, ou d'interruptions d'activités, ou de tout dommage indirect, spécial, secondaire ou consécutif, même si ces entités ont été préalablement informées d'une telle éventualité.

LA DOCUMENTATION EST FOURNIE « EN L'ÉTAT » ET TOUTE AUTRE CONDITION, DÉCLARATION ET GARANTIE, EXPRESSE OU TACITE, EST FORMELLEMENT EXCLUE, DANS LA MESURE AUTORISÉE PAR LA LOI EN VIGUEUR, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON.

Contents

Preface ix

1. New Information About the SPARC Enterprise T5440 Server 1

Important New Information About the SPARC Enterprise T5440 Server 2

Notes on Using Oracle Solaris 11 OS 2

New Information About Known Issues 3

Firmware and General Software Issues 3

New Information About Documentation Errata 4

Integrated Lights Out Manager 2.0 Supplement for the SPARC Enterprise T5440 Server 4

Complement to the Description Regarding Diagnostics Trigger 4

Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide 4

Complement to the Description Regarding Diagnostics Trigger 4

2. Important Information About the SPARC Enterprise T5440 Server 5

Notes on DVD Drive and Discs 5

Supported Versions of Solaris OS and System Firmware 6

System Firmware Update 6

Support for Windows 7 and Internet Explorer 8 7

Change and Functional Enhancement in System Firmware 7.2.8 7

About the Change of Host Console Target 7

About the Addition of Protocols for Firmware Update 8
Preinstalled Software 9
Logical Domains 9
Supported Sun Explorer Utility Version 10
Patch Information 10
Mandatory Patch Information for the Solaris 10 8/07 OS 11
Mandatory Patch Information for the Solaris 10 5/08 OS 11
Mandatory Patch Information for the Solaris 10 10/08 OS 12
▼ To Install Patches 12
Installing the Solaris 10 8/07 OS and Required Patches 13
▼ Install the Solaris 10 8/07 OS and Required Patches 13
Patches for Option Cards 15
Solaris 10 5/08 Recovery DVD 15
General Functionality Issues and Limitations 15
Cryptographic Function 15
RAID Function 16
Addition or Degradation of CMP/Memory Modules 16
Precaution to Follow Concerning a CMP/Memory Module Failure 17
Cable Management Arm 17
Support for SSD Storage 18
Using a SSD as a Boot Device 18
Cache Setting of SSDs 18
Estimated Usable Period of SSDs 18
Preventive Replacement Monitoring Function of SSD 19
RFID Tag 19
Changed Behavior When Operating the Solaris OS With Logical Domains 20
Results from Halting or Rebooting the Control Domain 21
Processor Identification 21

Notes on the Use of 200V Power Supply 22

3. Known Issues 23

Hardware and Mechanical Issues 23

Solaris OS Issues 26

Firmware and General Software Issues 27

Oracle VM Server for SPARC Issues 32

4. Documentation Errata 33

SPARC Enterprise T5440 Server Getting Started Guide 33

SPARC Enterprise T5440 Server Service Manual 34

SPARC Enterprise T5440 Server Administration Guide 35

Integrated Lights Out Manager 2.0 User's Guide 35

Integrated Lights Out Manager 2.0 Supplement for SPARC Enterprise T5440 Server 36

Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide 36

Integrated Lights Out Manager (ILOM) 3.0 Web Interface Procedures Guide 38

Integrated Lights Out Manager (ILOM) 3.0 Supplement for SPARC Enterprise T5440 Server 39

A. Fixed Issues 41

Hardware and Mechanical Issues 41

Solaris OS Issues 42

Firmware and General Software Issues 46

Fixed in System Firmware 7.4.0.b or Later 47

Fixed in System Firmware 7.2.11 or Later 47

Fixed in System Firmware 7.2.10.a or Later 51

Fixed in System Firmware 7.2.10 or Later 53

Fixed in System Firmware 7.2.8 or Later 59

Fixed in System Firmware 7.2.7.b or Later 61

Fixed in System Firmware 7.2.2.e or Later 65

Fixed in System Firmware 7.1.8.a or Later 72

B. Minor Cases 79

Firmware and General Software Events 79

Preface

These product notes contain late-breaking information about the SPARC Enterprise T5440 server hardware, software, or documentation errata.

Note – The information indicated in this document will be updated as needed. Check the following web site on a regular basis for the availability of a newer edition when using the SPARC Enterprise T5440 server.
http://www.fujitsu.com/sparcenterprise/manual/

Downloading Documentation

The documentation set of SPARC Enterprise T5440 server is available on the following web site.

- Global Site

  http://www.fujitsu.com/sparcenterprise/manual/

- North American Site

  https://download.computers.us.fujitsu.com/

- Japanese Site

  http://primeserver.fujitsu.com/sparcenterprise/manual/

Note – Information in these product notes supersedes the information in the SPARC Enterprise T5440 server documentation set.

Documentation Feedback

If you have any comments or requests regarding this document, or if you find any unclear statements in the document, please state your points specifically on the form at the following URL.

http://www.fujitsu.com/global/contact/computing/sparce_index.html

CHAPTER 1

New Information About the SPARC Enterprise T5440 Server

This chapter describes new information about the SPARC Enterprise T5440 server that was not documented in the previous edition of the *SPARC Enterprise T5440 Server Product Notes*.

- Important New Information About the SPARC Enterprise T5440 Server
- New Information About Known Issues describes technical issues that were identified after the previous edition was published.
- New Information About Documentation Errata -- This section describes documentation errata that were identified after the previous edition was published.

Information that was documented in the previous edition is provided in the following locations:

- Chapter 2 provides important information about what software is preinstalled on your server, how to obtain support, and how to determine system configuration.
- Chapter 3 provides important information about hardware, software, and firmware issue and available workarounds.
- Chapter 4 provides updates to existing system documentation.
- Appendix A describes fixed technical issues.
- Appendix B describes minor cases that will not be fixed.

Important New Information About the SPARC Enterprise T5440 Server

Notes on Using Oracle Solaris 11 OS

At the Oracle Solaris OS startup, the ILOM event log shows the Open/Close session message more than once which means login/logout to/from ILOM.

This message appears because the SMF service ilomconfig-interconnect on Oracle Solaris OS accesses ILOM at the startup by using an internal bus. Therefore, this message can be safely ignored.

Output example:

```
3192   Mon Nov  7 15:36:43 2011  Audit      Log       minor
       host_root : Close Session : object = "/SP/session/type" : value = "shell"
: success
3191   Mon Nov 7 15:36:42 2011 Audit Log minor
       root : Open Session : object = "/SP/session/type" : value = "shell" :
success
       :
```

New Information About Known Issues

This section describes technical issues that were identified after the previous edition was published.

Firmware and General Software Issues

TABLE 1-1 Firmware and General Software Issues

CR ID	Description	Workaround

6591634	During OpenBoot PROM at the system start, when you execute a forced dump order from ILOM, a FATAL error message appears in the console log and the following boot order fails.
	
	Event example:
	`{0} ok`
	`FATAL:`
	`/virtual-devices@100/console@1: Last Trap: Non-Resumable Error`
	`:`
	`:`
	`{0} ok boot`
	`FATAL: system is not bootable, boot command is disabled`
		To recover this event, power off and then power on the system.
		When OpenBoot PROM became no response, execute a break order, not a forced dump order, from ILOM. If not recovered by the break order, power off and then power on the system.

New Information About Documentation Errata

This section describes documentation errata that were identified after the previous edition was published.

Integrated Lights Out Manager 2.0 Supplement for the SPARC Enterprise T5440 Server

Complement to the Description Regarding Diagnostics Trigger

In "Specify Diagnostic Trigger Conditions Using the CLI," the following description is missing.

The Solaris OS restart using the Solaris OS `shutdown` command or the reset on OpenBoot PROM never runs diagnostics (POST). If you want to run POST, you need to perform system reset (`reset /SYS`) or system power off/on (`stop /SYS`, `start /SYS`) from ILOM.

Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide

Complement to the Description Regarding Diagnostics Trigger

In "Specify the Diagnostics Trigger," the following description is missing.

The Solaris OS restart using the Solaris OS `shutdown` command or the reset on OpenBoot PROM never runs diagnostics (POST). If you want to run POST, you need to perform system reset (`reset /SYS`) or system power off/on (`stop /SYS`, `start /SYS`) from ILOM.

CHAPTER 2

Important Information About the SPARC Enterprise T5440 Server

This chapter describes important information about the SPARC Enterprise T5440 server.

- "Notes on DVD Drive and Discs" on page 5
- "Supported Versions of Solaris OS and System Firmware" on page 6
- "System Firmware Update" on page 6
- "Preinstalled Software" on page 9
- "Patch Information" on page 10
- "Solaris 10 5/08 Recovery DVD" on page 15
- "General Functionality Issues and Limitations" on page 15
- "Support for SSD Storage" on page 18
- "RFID Tag" on page 19
- "Changed Behavior When Operating the Solaris OS With Logical Domains" on page 20
- "Processor Identification" on page 21
- "Notes on the Use of 200V Power Supply" on page 22

Notes on DVD Drive and Discs

See the "Notes on DVD Drive and Discs in SPARC Enterprise" on the website below before using the CD/DVD discs in the standard DVD drive mounted in this server.

http://www.fujitsu.com/sparcenterprise/manual/

Supported Versions of Solaris OS and System Firmware

TABLE 2-1 lists the versions of Oracle Solaris Operating System (Solaris OS) and system firmware supported for SPARC Enterprise T5440 server.

Your server is preinstalled with the Solaris OS, patches, and firmware but you can install the same or another supported version. Be aware that some versions of the OS require installation of mandatory patches. See "Patch Information" on page 10.

Note – If you install the Solaris OS, you will not have access to the additional software that was preinstalled at the factory. See "Preinstalled Software" on page 9.

TABLE 2-1 Supported Versions of the Solaris OS and Firmware

	Supported Versions
Solaris OS	Solaris 10 8/07 OS plus patches – Minimum supported version
	Solaris 10 5/08 OS plus patches
	Solaris 10 10/08 OS plus patches
	Solaris 10 5/09 OS or later
	Solaris 11 OS – Latest supported version
Firmware	System Firmware 7.1.8.a – Minimum supported version
	System Firmware 7.4.0.d – Latest supported version (as of November 2011)

For systems equipped with the 1.6 GHz processor, a minimum level of 7.2.2.e of System Firmware and the Solaris 10 8/07 OS plus the mandatory patches is required.

System Firmware Update

The System Firmware controls various aspects of the host and the service processor. The System Firmware comprises the following individual firmware components.

- Integrated Lights Out Manager (ILOM) 2.0 firmware
- OpenBoot PROM (OBP) firmware
- Power-On Self-Test (POST) firmware

- Hypervisor firmware
- VBSC firmware

System Firmware updates are provided as patch releases. For the information on how to get the patch releases, contact your sales representative.

When you update the System Firmware, all of the individual firmware components are updated. You cannot update firmware components individually. Refer to the *SPARC Enterprise T5440 Server Installation and Setup Guide* for more information about updating the server firmware.

Support for Windows 7 and Internet Explorer 8

As of System Firmware 7.2.7, the Remote Console feature in ILOM supports Microsoft Windows 7 and Internet Explorer 8 operating system clients.

Change and Functional Enhancement in System Firmware 7.2.8

About the Change of Host Console Target

In System Firmware 7.2.8 or later, the host console target in ILOM has been changed to `/HOST/console`. However, by directly specifying the conventional target `/SP/console`, you can obtain the host console as before. Also, the properties under the host console target can be used in the same way as `/SP/console`.

How to obtain the host console in System Firmware 7.2.8 or later is as follows.

```
-> show /HOST/console

/HOST/console
    Targets:
        history

    Properties:
        escapechars = #.
        line_count = 0
        pause_count = 0
        start_from = end

    Commands:
        cd
```

```
        show
        start
        stop

-> start /HOST/console
Are you sure you want to start /HOST/console (y/n)? y

Serial console started.  To stop, type #.

XXXXXX console login:
```

About the Addition of Protocols for Firmware Update

In System Firmware 7.2.8 or later, three protocols which can be used in the firmware update via the ILOM CLI interface have been added. In addition to the conventional tftp, you can use ftp, sftp, and scp.

The scp protocol execution example:

```
-> load -source
scp://xxxxx:xxxxxx@XXX.XXX.XXX.XXX//mnt1/Firmware_Update/Huron/7.2.8/
/Sun_System_Firmware-7_2_8-SPARC_Enterprise_T5120+T5220.pkg

NOTE: An upgrade takes several minutes to complete. ILOM will enter a special
mode to load new firmware. No other tasks can be performed in ILOM until the
firmware upgrade is complete and ILOM is reset.

Are you sure you want to load the specified file (y/n)? y
Do you want to preserve the configuration (y/n)? y
.............................................................
.....................................................

Firmware update is complete.
ILOM will now be restarted with the new firmware.
```

Preinstalled Software

This section lists and describes the preinstalled software on your server. The preinstalled software is ready to use.

TABLE 2-2 Preinstalled Software

Software	Location	Function
Solaris 10 5/09	Root disk Slice 0 (and on Slice 3 in the ABE) with patches (see "Patch Information" on page 10)	Operating system
Sun Studio 1.2 U1	`/opt/sunstudio12.1`	C, C++, and Fortran compiler
LDoms Manager 1.3	`/opt/SUNWldm/`	Manages Logical Domains
LDoms MIB	`/opt/SUNWldmib`	LDoms Management Information Base
CMT Tools 1.2	`/opt/sunstudio12.1/bin` `/opt/sunstudio12.1/prod/bin`	Sun Studio Developer Tools
Sun Code Generator for SPARC Systems 4.3.2	`/opt/gcc` and `/opt/SUNW0scgfss`	GCC compiler for SPARC Systems

Note – The Solaris OS is preinstalled both in root disk Slice 0 for normal operations, and in Slice 3 along with Live Upgrade software to provide an Alternate Boot Environment (ABE). The ABE enables you to upgrade the Solaris OS or perform system maintenance tasks without reducing performance. An identical (bootable) copy of the root partition (including the Solaris OS, EIS, and applications) is installed as an ABE in Slice 3.

Logical Domains

Logical Domains is a virtualized hardware environment operating on the SPARC platform. It can divide one platform into multiple virtual server environments, and each virtual server can run its own independent instance of the operating system. Using Logical Domains increases your server usage, efficiency, and return on investment, and also reduces your server footprint.

Oracle VM Server for SPARC (Formerly, called Logical Domains Manager or LDoms Manager) software creates and manages logical domains, and maps logical domains to physical resources.

Note – The Logical Domains MIB must be configured before you can use it. For the configuration instructions, see the `README` file located in the Logical Domains MIB installation directory, `/opt/ldoms_mib`.

For more information on Oracle VM Server for SPARC, go to:

http://www.fujitsu.com/global/services/computing/server/sparcenterprise/products/software/ldoms/

Supported Sun Explorer Utility Version

The SPARC Enterprise T5440 server is supported by the Sun Explorer 5.10 (or later) data collection utility, but is not supported by earlier releases of the utility. Installing Sun Cluster or Sun Net Connect software from the preinstalled Java ES package could automatically install an earlier version of the utility on your system. After installing any of the Java ES software, determine whether an earlier version of the Sun Explorer product has been installed on your system by typing the following:

```
# pkginfo -l SUNWexplo
```

If an earlier version exists, uninstall it and install version 5.10, or later. For information on how to get the Sun Explorer Utility, please contact a certified service engineer.

Patch Information

For the information on how to get the patch releases, contact your sales representative.

Before contacting support, ensure that all mandatory patches are installed on your server.

To determine if a patch is present, see "To Install Patches" on page 12.

Note – The mandatory patches might not be included in some versions of the preinstalled or preloaded software on your server. If the patches are missing from your server, download them as described in "To Install Patches" on page 12.

Mandatory Patch Information for the Solaris 10 8/07 OS

The following patches are mandatory for systems installed with the Solaris 10 8/07 OS:

- 124235-02 or later
- 125369-13
- 125416-06
- 125476-02
- 126434-05
- 127111-08 or later
- 119254-51 or later
- 125891-01
- 127755-01
- 127127-11
- 137111-03 or later
- 137291-01 or later
- 138048-05 or later
- 138312-01

Note – See "Installing the Solaris 10 8/07 OS and Required Patches" on page 13 for the correct installation procedure.

Mandatory Patch Information for the Solaris 10 5/08 OS

The following patches are mandatory for systems installed with the Solaris 10 5/08 OS:

- 137111-03 or later

- 137291-01 or later
- 138048-05 or later
- 138312-01
- 119254-58
- 138866-01
- 137137-09
- 138283-05
- 138888-01

Mandatory Patch Information for the Solaris 10 10/08 OS

The following patch is mandatory for systems installed with the Solaris 10 10/08 OS:

- 138888-01

▼ To Install Patches

1. **Determine whether the patches you require have been installed on your system.**

   For example, using the `showrev` command, type the following for each patch number:

```
# showrev -p | grep "Patch: 123456"
```

   - If you see patch information listed for the queried patch, and the dash extension (the last two digits) matches or exceeds the required version, your system has the proper patches already installed. No further action is required.

     For example, if patch *123456-16* or later is installed, your system has the required version of this patch.

   - If you do not see patch information listed for the queried patch, or if the dash extension precedes the required version, go to Step 2.

     For example, if no version of the *123456* patch, or a version with an extension of -15 or earlier is installed, you must install the new patch.

2. **Get the necessary patches.**

   For the information on how to get the patch releases, contact your sales representative.

3. **Follow the installation instructions provided in a specific patch's `README` file.**

Installing the Solaris 10 8/07 OS and Required Patches

In order to install the Solaris 10 8/07 OS, you must build an install image with the correct patches applied. Use the following procedure to install the Solaris 10 8/07 OS onto your system.

▼ Install the Solaris 10 8/07 OS and Required Patches

You must download all the patches listed in "Mandatory Patch Information for the Solaris 10 8/07 OS" on page 11 before performing this procedure.

1. **Copy the following patches to a location accessible by the netinstall server:**
   - 119254-51 or later
   - 124235-02 or later
   - 125369-13
   - 125416-06
   - 125476-02
   - 125891-01
   - 126434-05
   - 127111-08 or later
   - 127755-01
   - 127127-11
   - 138312-01
2. **Install the following patches to the `miniroot` directory of your netinstall server using the `patchadd` command:**
   - 119254-51 or later
   - 125369-13
   - 125476-02
   - 125891-01
   - 127111-08 or later
   - 127755-01
   - 127127-11

- 138312-01

Example:

```
# patchadd -C ./Solaris_10/Tools/Boot /net/downloads/T5440_patches/125369*
# patchadd -C ./Solaris_10/Tools/Boot /net/downloads/T5440_patches/125476*
# patchadd -C ./Solaris_10/Tools/Boot /net/downloads/T5440_patches/127111*
```

3. **Copy the following patches into the netinstall server's** `Solaris_10/Patches` **directory:**
   - 119254-51 or later
   - 124235-02 or later
   - 125369-13
   - 125416-06
   - 125476-02
   - 125891-01
   - 126434-05
   - 127111-08 or later
   - 127755-01
   - 127127-11
   - 138312-01

   Example:

```
# cp -R /net/downloads/T5440_patches/124235* ./Solaris_10/Patches
# cp -R /net/downloads/T5440_patches/125369* ./Solaris_10/Patches
...
```

4. **Perform a netinstall using this patched version of the Solaris 10 8/07 OS.**
5. **On the SPARC Enterprise T5440 server, use the** `patchadd` **command to install the remaining patches:**
   - 137111-03 or later
   - 137291-01 or later
   - 138048-05 or later

Related Information

- "To Install Patches" on page 12
- "Mandatory Patch Information for the Solaris 10 8/07 OS" on page 11

Patches for Option Cards

If you add option cards to your server, refer to the documentation and `README` files for each card to determine if additional patches are needed.

Solaris 10 5/08 Recovery DVD

A Solaris OS recovery DVD (*Solaris 10 5/08 OS Recovery DVD for SPARC Enterprise T5440 Server*) has been shipped with your server.

The DVD has been provided for recovery purposes in case you reinstall the Solaris OS.

Note – The Solaris 10 5/08 image on this DVD includes a patched mini-root (Patch ID 138312-01) which allows the SPARC Enterprise T5440 server to be installed or booted from DVD. This DVD must be used to re-install Solaris 10 5/08 from the DVD. The standard Solaris 10 5/08 release will not boot from the DVD drive.

General Functionality Issues and Limitations

This section describes general issues known to exist at this release of the SPARC Enterprise T5440 server.

Cryptographic Function

When using the cryptographic function, install the Solaris 10 9/10 or later.

If you use the function in the Solaris OS older than Solaris 10 9/10, apply the patch 142909-17 or later.

RAID Function

A hardware RAID function is provided as standard in SPARC Enterprise T5440 server. However, with regard to data protection, reliability, and serviceability, Fujitsu does not support this function.

Fujitsu recommends use of software RAID functions for internal disks as specified below:

- PRIMECLUSTER GDS
- Solaris Volume Manager (attached to Solaris OS)
- VERITAS Storage Foundation

Addition or Degradation of CMP/Memory Modules

Degrading or adding CMP/memory modules is not supported.

Do not change the ILOM `ioreconfigure` parameter to a value other than "`false`". Changing the parameter may cause the input path to be rebuilt, which may prevent the Solaris OS from starting up. For more information on the `ioreconfigure` parameter, see the *Integrated Lights Out Manager 2.0 Supplement for SPARC Enterprise T5440 Server*.

If a CMP/memory module fails, the CMP/memory module must be replaced. It is not possible to continue operation simply by degrading a faulty CMP/memory module.

Precaution to Follow Concerning a CMP/Memory Module Failure

With this product, all the following I/O devices are connected to each CMP.

TABLE 2-3 I/O Devices Connected to CMP

CMP number	2-CMP configuration	4-CMP configuration
CMP0	Onboard disk drive	<-
	Onboard USB port	<-
	Onboard DVD drive	<-
	PCIe 0-3	PCIe 0,1
CMP1	Onboard 1-gigabit or 10-gigabit network	<-
	XAUI	<-
	PCIe 4-7	PCIe 4,5
CMP2	----	PCIe 2,3
CMP3	----	PCIe 6,7

The I/O devices connected to one CMP that has completely failed become unusable.

Cable Management Arm

The following conditions apply to the use of a Cable Management Arm (CMA) on a SPARC Enterprise T5440 server:

- Follow the description in "PCIe Slot Configuration Guidelines" to determine the slot for mounting a PCI card/XAUI card.

  The "PCIe Slot Configuration Guidelines" are included in Chapter 4, "Servicing Customer-Replaceable Unit (CRU)" (under "Servicing PCIe Cards"), in the *SPARC Enterprise T5440 Server Service Manual*.

  Depending on the type of the selected card (Link Kit/Card using an optical cable/SCSI card/XVR card/SAS card) and slot, the following conditions apply:

  - For Slot 0, 1, 2, 3 or 4:

    Do not route the cables through the CMA itself, but use the free space on top of the CMA. When a link kit is installed, do not use the CMA.

  - For Slot 5, 6 or 7:

    Do not use the CMA.

- The estimated maximum load capacity of the CMA is as follows: Four main unit AC cables + twenty-two RJ45 cables.

Support for SSD Storage

The SPARC Enterprise T5440 server can now use 32GB SATA SSD for internal storage. The SSDs are hot-pluggable and can be used in place of or in combination with 2.5-inch SAS hard drives. The current 2.5-inch drive tray is fully compatible with these SSD units.

Note – You can install a maximum of 3 SSDs in the T5440 server. When using the external storage unit for the system disk, up to 4 SSDs can be installed.

For instructions on installation and removal of SSDs, see the "Hot-Plugging a Hard Drive" described in the *SPARC Enterprise T5440 Server Service Manual*. The procedures apply to both the disk-based hard drives and SSDs.

Using a SSD as a Boot Device

You cannot use a SSD as a boot device.

Cache Setting of SSDs

The SSDs have a setting of internal cache enabled in the initial status. When used in the cache enabled condition, data may be lost at the time of power failure.

You can disable the internal cache by using a sub command cache of format -e command after booting the Solaris OS. This setting is not saved when you reboot the Solaris OS.

To ensure data integrity, it is recommended to use an uninterruptible power supply.

Estimated Usable Period of SSDs

The SSDs are designed with the estimate of usable period for five years. Depending on the user environment such as the frequency of use, replacement may be required before the five-year maintenance support period expires.

Preventive Replacement Monitoring Function of SSD

On the ESF (Enhanced Support Facility) of a certain version or later, the preventive replacement monitoring function of SSD is supported. Supported versions of software are as follows.

- Supported versions of software

  ESF (Enhanced Support Facility) 3.0 to 3.1, and patch 914604-08 or later

RFID Tag

RFID tags are attached to the servers shipped after August 2010 in stages. Note that the servers with and without the RFID tag may temporarily exist.

FIGURE 2-1 shows the location of the RFID tag.

FIGURE 2-1 SPARC Enterprise T5440 Server Appearance (Front View)

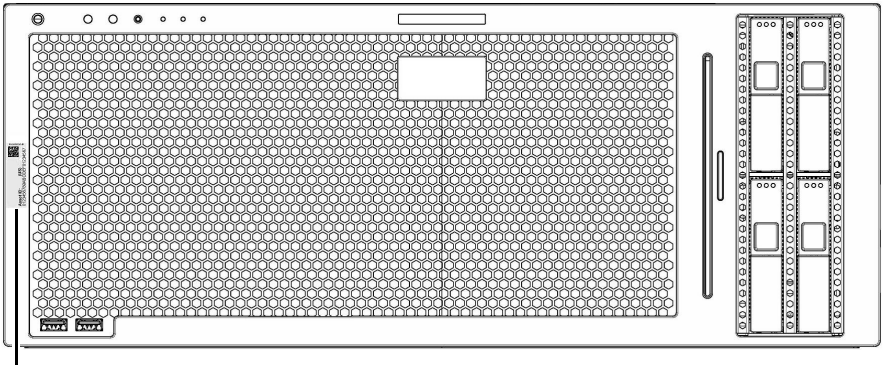
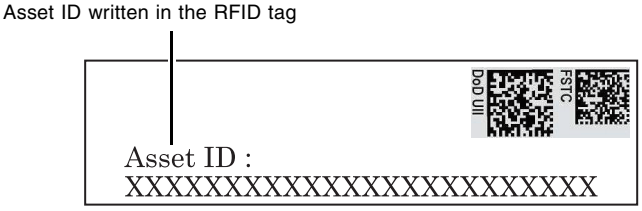


FIGURE 2-2 shows the appearance of RFID tag.

FIGURE 2-2 RFID Tag Appearance



Changed Behavior When Operating the Solaris OS With Logical Domains

This section describes the changes in behavior in using the Solaris OS that occur once a configuration has been created by the Logical Domains Manager.

Note – OpenBoot PROM firmware is not available after the Solaris OS has started, because it is removed from memory. To reach the `ok` prompt from the Solaris OS, you must halt the domain. You can use the Solaris OS `halt` command to halt the domain.

Results from Halting or Rebooting the Control Domain

The following table shows the expected behavior of halting or rebooting the control (primary) domain.

TABLE 2-4 Expected Behavior of Halting or Rebooting the Control (primary) Domain

Command	Other Domain Configured?	Behavior
`halt`	No	Host powered off and stays off until powered on at the SP.
	Yes	Resets and boots up if the variable `auto-boot?=true`. Resets and halts at `ok` prompt if the variable `auto-boot?=false`.
`reboot`	No	Reboots the host, no power off.
	Yes	Reboots the host, no power off.
`shutdown -i 5`	No	Host powered off, stays off until powered on at the SP.
	Yes	Resets and reboots.

Processor Identification

Different platforms and platforms of the same model might have different processor IDs for identical configurations. For example, on UltraSPARC T1 CPU based platforms, the processor IDs start with processor ID 0. But other platforms, including those based on the UltraSPARC T2 Plus CPU, might not have a processor ID 0. The Solaris `psrinfo` command might display output similar to the following for platforms based on the UltraSPARC T2 Plus processor:

```
 8       on-line   since 09/18/2007 21:26:25
 9       on-line   since 09/18/2007 21:26:30
 16      on-line   since 09/18/2007 21:26:30
 17      on-line   since 09/18/2007 21:26:30
```

The processor IDs exported to a guest domain on a platform running multiple guest domains with a virtual machine manager might represent a virtual abstraction. Within each guest domain, each processor ID visible to the software will be a unique integer value.

Software running in different guest domains on the same physical machine might see the same or different sets of virtual processor IDs. If domaining is enabled, the virtual processor IDs and physical processor IDs are never the same. For information about the mapping between virtual and physical CPU numbers, see the latest *Oracle VM Server for SPARC Administration Guide*.

Processor IDs are simply unique integer values in the domain where the software is running. The integer value will fit in the type `processorid_t`. Also refer to the `p_online`(2) man page.

Notes on the Use of 200V Power Supply

For the servers that have the plug with lock function, confirm that a 15A overcurrent protection device is available outside the server. If one is not available, prepare an external 15A overcurrent protection that can be achieved by means of no-fuse breakers (NFBs) or fuses. The plug with lock function refers to plugs other than grounding-type ones with two parallel blades, such as the NEMA L6-30, L6-20, L6-15, and L5-15.

For details of the power cord type for your server, contact your authorized service engineer.

CHAPTER 3

Known Issues

This chapter describes the known issues in the SPARC Enterprise T5440 server.

- "Hardware and Mechanical Issues" on page 23
- "Solaris OS Issues" on page 26
- "Firmware and General Software Issues" on page 27
- "Oracle VM Server for SPARC Issues" on page 32

Note – For the issues already fixed in the latest version of Solaris OS or System Firmware, see Appendix A. For the latest version to be supported, see "Supported Versions of Solaris OS and System Firmware" on page 6.

Hardware and Mechanical Issues

This section describes hardware issues known to exist at this release of the SPARC Enterprise T5440 server.

TABLE 3-1 Hardware and Mechanical Issues

CR ID	Description	Workaround
6823448	The OK/Activity LEDs on SSDs behave differently than the OK/Activity LEDs on conventional hard drives (HDDs). For example, when the Solaris OS is running, LEDs on HDDs is lit, but the LEDs on SSDs remain off. However, when there is an access to the SSD, the LED flashes.	None.

TABLE 3-1 Hardware and Mechanical Issues *(Continued)*

CR ID	Description	Workaround
6726637	If three or four USB thumb drives are connected to the external USB ports, and the system is under heavy I/O load (including on the USB thumb drives), the system might panic after several hours (typically more than 10).	Under heavy I/O load, do not connect more than two USB thumb drives to the system.
6706976	At write to CD/DVD media, there may be cases where the writing speed may not reach the maximum speed supported by the CD/DVD drive. Even if the maximum operation is not reached, there are no problems in the processing for writing to the CD/DVD media.	Use the media as is.
6679425	PCIe Slots 4 and 7 have tight clearances with the chassis rear panel.	When installing a PCIe card in PCIe Slot 4 or 7, angle the card to clear the tab on the PCIe latch on the chassis rear panel, then insert the card vertically into the PCIe slot on the motherboard.
6581309	To use the XVR-300 as a console of the SPARC Enterprise T5xx0, patch 137111-01 or later must be applied. If the patch is applied after the OpenBoot PROM (OBP) variable has been changed to use the XVR-300 as the console, console output will revert to the default ILOM console during the Solaris OS boot sequence.	To use the XVR-300 as a console, apply patch 137111-01 or later to the Solaris OS before changing the OBP variable. Alternatively, install the Solaris OS (or reinstall it) with ILOM set as the console used, and then apply the patch. No GUI can be used during that time. After the patch has been applied, the XVR-300 can be used as the console as soon as the OBP variable is changed.
n/a	Some PCIe cards do not have enough clearance for external cables when installed in PCIe Slot 7. The cable management arm (CMA) release button may interfere with external cables and/or connectors for the following PCIe cards when installed in PCIe Slot 7: • XVR-300 frame buffer card • Any PCIe card with an external SCSI connector • Any PCIe card with an external fiber cable connector	Do one of the following: • Install the restricted cards in a slot other than PCIe Slot 7 • Do not install the cable management arm
n/a	XAUI card disables an Onboard network port. For details, see "Onboard Network Port Disabled by an XAUI Card" on page 25.	

TABLE 3-1 Hardware and Mechanical Issues *(Continued)*

CR ID	Description	Workaround
n/a	When the system is initialized, firmware is loaded and occupies approximately 128 MB to 352 MB of the host memory. The banner and other software utilities report an amount of memory minus the amount of memory that is occupied by firmware.	When viewing the amount of memory in the banner, be aware that the banner reports the amount less what is used by the firmware.
n/a	RAID volume crashes at the power recovery after the power failure.	Do not use the RAID.

Onboard Network Port Disabled by an XAUI Card

A 10GbE XFP XAUI Adapter Card (XAUI card) in slot 4 disables onboard network port 1 (NET1). The XAUI card in slot 5 disables onboard network port 0 (NET0).

FIGURE 3-1 XAUI Cards and Onboard Network Ports

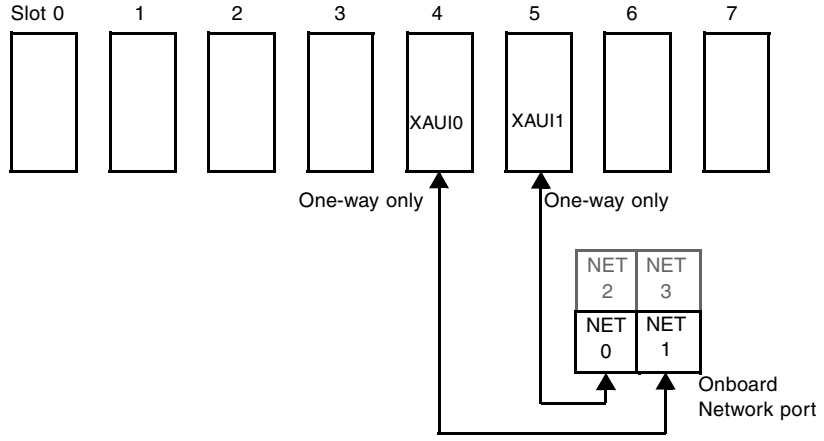


TABLE 3-2 Network Ports and Device Names

Onboard Network	XAUI Slot	Device Name
NET 0	XAUI 1	nxge0
NET 1	XAUI 0	nxge1

Solaris OS Issues

This section describes Solaris OS issues known to exist at this release of the SPARC Enterprise T5440 server.

TABLE 3-3 Solaris OS Issues

CR ID	Description	Workaround
6748786	Executing `prtdiag` in a Solaris OS operation following hot system replacement of a fan or PSU will display "`unknown`" for the overall environment status.	Wait a few minutes after restarting picl, and then execute the `prtdiag` command again. # **`svcadm restart picl`** Wait a few minutes at this point. # **`prtdiag -v`**
6699494	Under rare conditions, the system might panic if repeated commands of creating and deleting aggregation links are put in a loop and are executed many times.	Avoid adding, deleting and repeating the link aggregation operations over and over again.
6627749	The `prtdiag` command may display "PCIX" under "Bus Type" for a card inserted in a PCIe slot.	None. See "The prtdiag Command May Display "PCIX" under "Bus Type" for a Card Inserted in a PCIe Slot (CR 6627749)" on page 26.
n/a	System shutdown may fail.	Do not attempt a shutdown before boot processing is completed. Start shutdown processing after ensuring that boot processing is completed or waiting for an adequate period of time (at least 10 minutes).

The `prtdiag` Command May Display "PCIX" under "Bus Type" for a Card Inserted in a PCIe Slot (CR 6627749)

For example:

```
# prtdiag -v
 :
================================ IO Devices ================================
Slot +            Bus   Name +                          Model
Status            Type  Path
----------------------------------------------------------------------------
MB/PCIE6          PCIX  SUNW,emlxs-pci10df,fc20         LPe11002-S
```

```
 ^^^^^         ^^^^^
                   /pci@700/pci@0/pci@c/SUNW,emlxs@0
MB/PCIE6           PCIX  SUNW,emlxs-pci10df,fc20           LPe11002-S
 ^^^^^         ^^^^^
                   /pci@700/pci@0/pci@c/SUNW,emlxs@0,1
 :
```

Workaround: None.

Firmware and General Software Issues

The following are known firmware and general software issues.

TABLE 3-4 Firmware and General Software Issues

CR ID	Description	Workaround

7046705	While the system is in operation, there may be an intermittent output of a message about the PSU sensor which redetected the input power in the Solaris OS system log (`/var/adm/messages`). At this time, the ILOM status check command (`show faulty`) displays normal status.
	Event example:
	`Jan 5 23:34:52 xxxxxxx SC Alert: [ID 494714 daemon.alert] IPMI | critical: ID = 116 : 01/05/2011 : 23:34:51 : Voltage : /PS1/AC_POK : State Deasserted`
	`Jan 5 23:34:57 xxxxxxx SC Alert: [ID 210946 daemon.notice] IPMI | minor: ID = 117 : 01/05/2011 : 23:34:57 : Voltage : /PS1/AC_POK : State Asserted`
	The `show faulty` command example:
	`-> **show faulty**`
	`Target | Property | Value`
	`----------+------------+------------`
	`->`
		None.
		In the firmware PSU monitoring, the relevant PSU sensor may sensitively detect the ignorable fluctuation of input power in some cases, which results in the relevant message output. Therefore, the relevant message can be safely ignored.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

7020953	In System Firmware 7.4.0.b or later, when Solaris OS is started, the FMA message of SUN4V-8002-SP might be reported to the OS console.
	Event example:
	`EVENT-TIME: Wed Jan 26 13:01:18 JST 2011`
	`PLATFORM: SUNW,SPARC-Enterprise-T5220, CSN: -, HOSTNAME: XXXXXX`
	`SOURCE: cpumem-diagnosis, REV: 1.7`
	`EVENT-ID: 0c8bb637-d649-6027-d5e9-b255046522de`
	`DESC: The error report generator has received input data that is inconsistent or improperly formatted.`
	`Refer to http://sun.com/msg/SUN4V-8002-SP for more information.`
	`AUTO-RESPONSE: No automated response.`
	`IMPACT: This error does not affect system operation. The error which could not be reported may have more serious impact which cannot be determined.`
	`REC-ACTION: Call your service provider to determine if your system requires a firmware upgrade. Please retain the error log file.`
		None.
		The output message can be safely ignored. No impact on the system.
		At the Solaris OS startup, due to the firmware defect, an improper event may be sent to the Solaris OS side. In that case, Solaris OS fails to interpret such event and output the message. SUN4V-8002-SP means that the error monitoring function on the Solaris OS has received an improper event.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6940465	When the power supply temporarily suspended due to events such as power failure, the message as below may be displayed in the ILOM event log.
	
	`2410 Wed Mar 31 04:06:49 2010 Chassis Log major`
	`Mar 31 04:06:49 ERROR: [CMPx ] Received Fatal Error`
	
	The error detecting point may be [ZAMx] in some cases.
		None.
		After the power supply recovered, use the ILOM CLI interface and execute the `show faulty` command. When there is no hardware error output, this message can be safely ignored.

6913388	The ILOM event log may not be in the Solaris OS system log output (/var/adm/messages).
	ILOM login event example:
	`Nov 7 14:13:03 xxxxxx SC Alert: [ID 178418 daemon.notice] Audit | minor: admin : Open Session :`
	`object = /session/type : value = shell : success`
	`Nov 7 14:13:04 xxxxxx SC Alert: [ID 434268 daemon.notice] Audit | minor: admin : Close Session :`
	`object = /session/type : value = shell : success`
		None.
		Perform the ILOM reset operation. If not recovered, shut down the system and then remove and insert the power cord.
		ILOM reset operation example:
		Log in to ILOM and execute the following command.
		[In case of ILOM command mode]
		`-> **reset /SP**`
		`Are you sure you want to reset /SP (y/n)? **y**`
		[In case of ALOM CMT compatible shell]
		`sc> **resetsc**`
		`Are you sure you want to reset the SC [y/n]? **y**`

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6835866
6857524
6858176
	The value of power consumption shown by /SYS/VPS (/SYS/VPS value) may exceed the threshold value. At this time, an event log as shown below will be collected.
	
	Event log example:
	`4368  Mon Jun 29 23:53:39 2009 IPMI  Log  major`
	`ID = e1f : 06/29/2009 : 23:53:39 : Power Unit : /SYS/VPS : Upper Critical going high : reading 1480.90 > threshold 1215.40 Watts`
	
	And when the power consumption value (/SYS/VPS value) has come back to under the threshold, it may display an abnormal value.
	
	Abnormal value display example:
	
	`4369  Mon Jun 29 23:54:28 2009 IPMI  Log  minor`
	`ID = e20 : 06/29/2009 : 23:54:28 : Power Unit : /SYS/VPS : Upper Critical going low : reading 0 < threshold 1215.40 Watts`
		None.
		The value of power consumption shown by /SYS/VPS is given as an indication.
		For the right value of power consumption, see /SP/powermgmt/actual_power.
		Therefore, the collected event log can be safely ignored.

6823561	In the back up and restore functions of ILOM settings, you cannot set "https" to the protocol for data transfer (`transfer_method property`).
	Example:
	`-> **set dump_uri= https://ipaddres/directory/filename**`
	`set: Unable to transfer image, please check URI`
		None.
		Use other protocols (tftp, ftp, sftp, scp, http).

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6725254	If a CMP module is disabled using one of the following commands (see below) and if this CMP module is physically removed from the system, on subsequent power-on the disabled CMP modules will appear in the OpenBoot PROM list of disabled devices. This might prevent automatic boot to Solaris OS.
	`sc> **disablecomponent asr-key**`
	`-> **set /SYS/component component_state=disabled**`
		This problem can be avoided by enabling all of the disabled CMP modules before physically removing them. The automatic boot problem can be worked around by setting the OpenBoot PROM variable `auto-boot-on-error?` to `TRUE` at the `ok` prompt:
		`ok **setenv auto-boot-on-error? TRUE**`

6724125	When CMP modules are removed but the corresponding memory modules are left in place, the service processor reports the following: `Fault | Critical: /SYS/MB/... prom is unreadable or corrupted.`	Do not power on the system unless complete CMP/memory module pairs are installed. Check for the availability of a patch for this defect.

n/a	In an environment where the keyboard has been connected to the USB port of the server, when you restarted Solaris OS, OpenBoot PROM may output the "`Failed to set idle`" message to the console log.
	Event example:
	`# /usr/sbin/shutdown -i6 -y -g0`
	`:`
	`Resetting...`
	`Failed to set idle  <--`
	
	`SPARC Enterprise T5120, Keyboard Present`
	`Copyright (c) 1998, 2011, Oracle and/or its affiliates. All rights reserved.`
		None.
		Due to the OpenBoot PROM issue, there is a problem in the data reference after the idle setting to the USB keyboard has been completed. Therefore, this has no impact on the server and the connected USB keyboard. The output message can be safely ignored.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

n/a	Regardless of whether a built-in fan is mounted or not, its error may erroneously be detected and the following error message may be displayed in the machine administration of Enhanced Support Facility (ESF) and in Server System Manager (SSM).
	
	ESF message example
	`FJSVmadm:A:PS0:FJSVmadm:Detected failure on the power supply unit`
	
	SSM message example
	`SSMAPL:A::FJSVapplg::status was changed. (component:"PS0" from "normal" to "fatal")`
	
	As far as the ILOM status check command (the `show faulty` command) result is normal, it has no impact on system.
		When it is erroneously detected in ESF, apply the Enhanced Support Facility 3.0 machine administration patch 914718-01 or later.
		
		When it is erroneously detected in SSM, apply the Server System Manager patch (FJSVapagt patch) 914667-05 or later.

n/a	In the environment where the Cisco Catalyst switch series manufactured by Cisco Systems are connected with the ILOM network management port (NET-MGT), when you execute the switching restart or the enable/disable operation of the network port, the Cisco Catalyst switch and the ILOM network port LEDs may not turn on, and the network linkup fails. Due to this, access to ILOM using protocols such as SSH (Secure Shell) fails.	Use the Cisco IOS software 12.2(53)SG / 12.2(46)SE version or later. In case that the 12.2(53)SG / 12.2(46)SE version or later cannot be applied, you can install other hub/switch between the Cisco Catalyst switch and the ALOM/ILOM network management port to avoid this event. It is already confirmed that this event can be avoided using the switching hub manufactured by Fujitsu. Perform the ILOM reset operation.

Oracle VM Server for SPARC Issues

For the issues about Oracle VM Server for SPARC (Formerly, called Logical Domains of LDoms), see the *SPARC Enterprise Oracle VM Server for SPARC Important Information*.

CHAPTER 4

Documentation Errata

Some information in the documentation for the SPARC Enterprise T5440 server is incomplete or incorrect. The following sections provide the corrections.

- "SPARC Enterprise T5440 Server Getting Started Guide" on page 33
- "SPARC Enterprise T5440 Server Service Manual" on page 34
- "SPARC Enterprise T5440 Server Administration Guide" on page 35
- "Integrated Lights Out Manager 2.0 User's Guide" on page 35
- "Integrated Lights Out Manager 2.0 Supplement for SPARC Enterprise T5440 Server" on page 36
- "Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide" on page 36
- "Integrated Lights Out Manager (ILOM) 3.0 Web Interface Procedures Guide" on page 38
- "Integrated Lights Out Manager (ILOM) 3.0 Supplement for SPARC Enterprise T5440 Server" on page 39

SPARC Enterprise T5440 Server Getting Started Guide

Location of Rack Rail Installation Instructions (CR 6747034)

The sentence under Step 2, "Place the server in its intended location for verification," is incorrect. The corrected sentence is as follows:

For rackmounting instructions, refer to the instructions included in one or more of the following locations:

- Rack installation kit
- *SPARC Enterprise T5440 Server Installation and Setup Guide*

SPARC Enterprise T5440 Server Service Manual

Erroneous Explanation in Table 1-3, "Ethernet Port LEDs" (CR 6726293)

There is an error in part of the following explanation appearing in Table "Ethernet Port LEDs," on page 8 of the service manual.

TABLE: Ethernet Port LEDs

LED	Color	Explanation
Right LED	Green	Link/Activity indicator: • On - A link has been established. • Blinking - Activity is in progress on the current port. • Off - No link is established.

In the case of the onboard gigabit Ethernet port, the right LED blinks during network access; but it does not turn on simply because a link has been established.

SPARC Enterprise T5440 Server Administration Guide

Incorrect Description in "Devices and Device Identifiers" (CR 6712561)

DB9 serial port, /SYS/TTYA, is indicated in "Devices and Device Identifiers" on page 38, but the /SYS/TTYA can not be unconfigured.

Integrated Lights Out Manager 2.0 User's Guide

Incorrect ILOM Command Related to IP Address Assignment

The ILOM commands indicated on page 23 and page 28 include an erroneous information.

`setpendingipdiscovery=` should be `set pendingipdiscovery=`.

Integrated Lights Out Manager 2.0 Supplement for SPARC Enterprise T5440 Server

Notes on the Connection of ILOM (CR 6806789)

On the SPARC Enterprise T5440 server, ILOM supports a maximum of 5 active sessions, including serial, Secure Shell (SSH), and web interface sessions.

Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide

Erroneous Default Value for `/SP/clients/dns`

The default value for `/SP/clients/dns` indicated on page 29 and page 144 is incorrect. The correct value is "enabled."

Erroneous Description in "Collect SP Data to Diagnose System Problems"(CR 6806800)

The following description in the section "Collect SP Data to Diagnose System Problems" on page 88 includes incorrect information.

Variable	Option	Description
URI	Any valid target directory location	Specifies the URI of the target directory. The URI format is as follows: *protocol*`://`*username*`:`*password@host/directory* Where protocol can be one of these transfer methods: SFTP, TFTP, or FTP. For example, to store the snapshot information in the directory named `data` on the host, define the URI as follows: `ftp://joe:`*mypasswd@host_ip_address*`/data` The directory `data` is relative to the user's login, so the directory would probably be `/home/joe/data`.

Service Snapshot utility does not support the SP data collection using TFTP.

Erroneous Description about Collecting SP Data

The following description in the section "Collect SP Data to Diagnose System Problems" on page 88 includes incorrect information.

Variable	Option	Description
data	`full`	Specifies that all data is to be collected ("full" collection). Note - Using this option may reset the running host.

On the SPARC Enterprise T-series servers, when you specified the `full` option, the host in execution will not be reset. While the host is executing, you can specify the `full` option.

Notes on Downloading System Firmware

For the information on how to get the patch releases, contact your sales representative.

Integrated Lights Out Manager (ILOM) 3.0 Web Interface Procedures Guide

Notes on "Enable and Disable Components" (CR 6624705)

In the procedure to "Enable and Disable Components" in "Viewing Component Information and Managing System Components" on page 68, even when you select either Enable or Disable from the Actions drop-down list, a log that indicates the execution from the ILOM CLI interface is output.

```
Fault | critical: SP detected fault at time Wed Jul 18 09:37:15
2007. /SYS/MB/GBE1 Disabled by CLI action.
```

Erroneous Description about Collecting SP Data

The following description in the section "Collect SP Data to Diagnose System Problems" on page 79 includes incorrect information.

3. Select the desired Data Set: `Normal`, `Full`, or `Custom`.

- `Normal` – Specifies that ILOM, operating system, and hardware information is collected.
- `Full` – Specifies that all data is to be collected. Selecting `Full` might reset the system.
- `Custom` – Allows you to choose one or more of the following data sets:
  - ILOM Data
  - Hardware Data
  - Basic OS Data
  - Diagnostic Data

On the SPARC Enterprise T-series servers, when you specified the `full` option, the host in execution will not be reset. While the host is executing, you can specify the `full` option.

Notes on Downloading System Firmware

For the information on how to get the patch releases, contact your sales representative.

Integrated Lights Out Manager (ILOM) 3.0 Supplement for SPARC Enterprise T5440 Server

Notes on "ILOM Information Stored on the SCC"

When transferring the SCC to the replacement server, keep the following note in mind.

If the ILOM versions are different between the failed server and the replacement server, the settings on the SCC(NVRAM) will be ignored or overwritten. If the ILOM versions are the same, the settings will be retained.

Incorrect Description about Specifying `powercycle` Option (CR 6881020)

When you specify the powercycle option indicated in "Specify System Behavior if Restart Fails" on page 13, the power on/off is not executed, but the hardware reset is executed forcibly.

`-v` Option for `flashupdate` Command (ALOM CMT Command) (CR 6806268)

The description about the [`-v`] option for `flashupdate` command is missing in TABLE "ALOM CMT Shell Status and Control Commands."

Even if you specify the `-v` option when executing the `flashupdate` command (ALOM CMT command), the detailed information is not displayed. Also, specifying the `-v` option does not affect update of the system firmware.

APPENDIX **A**

Fixed Issues

This appendix describes the fixed issues concerning the SPARC Enterprise T5440 server. You can avoid the issues by using the latest version of Solaris OS, System Firmware, or other software. For details on the fix, see the "workaround" in each table.

- "Hardware and Mechanical Issues" on page 41
- "Solaris OS Issues" on page 42
- "Firmware and General Software Issues" on page 46

Hardware and Mechanical Issues

TABLE A-1 lists the hardware and mechanical issues that have been fixed.

TABLE A-1 Fixed Hardware and Mechanical Issues

CR ID	Description	Workaround

6724921	In rare conditions under an extreme workload with a frame buffer card installed in an External I/O Expansion Unit slot, the system may reset and at least one "Fatal Error" message will be seen on the SP console. For example:
	`Chassis | major: Aug 7 14:32:04`
	`ERROR: [CMP0 ] Received Fatal Error`
		Do not install XVR-300 frame buffer cards in an External I/O Expansion Unit. If you see this error message under any other circumstances, contact your service engineer.

Solaris OS Issues

TABLE A-2 lists the Solaris OS issues that have been fixed.

TABLE A-2 Fixed Solaris OS Issues

CR ID	Description	Workaround
6702351	If `cfgadm -c unconfigure` is executed repeatedly in sequence, the blue LED may remain off.	**Note - Fixed in Solaris patch ID 139555-03 or later.** Since some time is required for the blue LED to light, do not execute the command repeatedly in sequence.
6693633	A multithreaded application with a hundred or more threads that transmits a large number of small (less than the MTU size) sized packets on the network might experience performance below that expected.	**Note - Fixed in Solaris patch ID 141444-03 or later.** If you are not getting the performance you expect and you are using a large number of CPUs or a large number of threads in a virtual domain then try using a smaller number of cpus or threads to improve performance.
6687884	When jumbo frame is enabled, some performance measurement tools such as `netstat` and `nicstat` may show incorrect performance data.	**Note - Fixed in Solaris patch ID 139570-01 or later.** Disable jumbo frame when using performance measurement tools such as `netstat` and `nicstat`.
6686544	NCP performance is slow when only one CMP is enabled	**Note - Fixed in Solaris patch ID 139975-02 or later.** Offlining all of the virtual CPUs associated with all but one CMP will reduce hardware crypto performance. Re-enable at least one of the virtual CPUs before running crypto operations if obtaining expected performance is a concern.
6678770	Under rare conditions, errors are possible when using the UltraSPARC=T2 crypto hardware for IPsec acceleration. It is possible that this problem has occurred if connectivity problems are seen running IPsec, and if console message similar to the following appear: `WARNING: n2cp0: cwq 2 encountered a protocol error, service continued.`	**Note - Fixed in Solaris patch ID 140386-04 or later.** Remove the SUNWn2cpact package. Type the following: # **`pkgrm SUNWn2cpact`**

TABLE A-2 Fixed Solaris OS Issues *(Continued)*

CR ID	Description	Workaround
6660074	Asymmetric cryptographic performance can be improved via driver tunable.	**Note - Fixed in Solaris patch ID 141444-03 or later.** Performance can be improved by increasing the number of ncp driver scheduling threads from the default. (Default value is 4.) Add the following line to the `/platform/sun4v/kernel/drv/ncp.conf` file: **`ncp-threads-per-core=6`**
6651903	SunVTS `xnetlbtest` fails intermittently when run in internal loopback mode for longer test durations. Failures occur with this error message: `Excessive packets dropped`	**Note - Fixed in Solaris patch ID 138179-01 or later.**
6640564	Guests in a logical domains (LDoms) environment can exhibit poor virtual disk I/O performance if the I/O domain is using a disk image or an SVM volume instead of a physical disk. This performance loss is particularly visible if multiple applications are performing I/O to the same virtual disk.	**Note - Fixed in Solaris patch ID 139562-02 or later.** Configure the I/O domain to use a physical disk for the Guest domains' virtual disk. If a disk image is required in the I/O domain, performance will improve if the image is on a ZFS volume instead of on an SVM volume.
6638112	Under heavy workloads with many threads or processes simultaneously accessing the same page of memory, the system might panic. The panic message will indicate a `send mondo timeout`	**Note - Fixed in Solaris patch ID 141414-01 or later.** Add the following line to the `/etc/system` file: `set xc_tick_limit_scale = 5` Reboot the system. If the panic recurs after applying this workaround, contact your service representative.
6603354	SunVTS `xnetlbtest` can fail during XAUI loopback testing. Failures occur with the following error message: `Excessive packets dropped`	**Note - Fixed in Solaris patch ID 138048-02 or later.** Do not run SunVTS `xnetlbtest` on XAUI interfaces.
6588550	The `prtdiag -v` command and the `prtpicl` command are slow and could thus appear to hang. These command could take up to five minutes to complete.	**Note - Fixed in Solaris patch ID 139502-01 or later.** Execute it again after a few minutes.

TABLE A-2 Fixed Solaris OS Issues *(Continued)*

CR ID	Description	Workaround
6581309	Console behavior on the control domain is inconsistent when a graphics device and keyboard are specified for console use. This situation occurs when the OpenBoot PROM variables input-device and output-device are set to anything other than the default value of virtual-console. If the control domain is set this way, some console messages are sent to the graphics console and other messages are sent to the virtual console. This situation results in incomplete information on either console. In addition, when the system is halted, or a break is sent to the console, control is passed to the virtual console, which requires keyboard input over the virtual console. As a result, the graphics console appears to hang.	**Note - Fixed in Solaris 10 10/08 and patch ID 137137-09 or later.** Use the virtual console only. From the `ok` prompt, ensure that the default value of virtual-console is set for both the input-device and output-device variables. If input-device and output-device are set to graphics console and the graphics console appears to be hung, connect to the virtual console from the service processor in order to provide the required input. Press Return on the virtual console keyboard once to see the output on the virtual console.
6555956	Panic can occur during reboot with the message `Fatal error has occurred in: PCIe root complex`. The panic occurs only on reboot and has never been observed on the reboot that follows the panic.	**Note - Fixed in Solaris patch ID 128304-02 or later.** Ensure that the system is set to automatically reboot after a panic. For information about setting up automatic reboot, see the *Integrated Lights Out Manager 2.0 Supplement for the SPARC Enterprise T5440 Server*.
6552999 6731560	If the verbose (`-v`) option is specified for the control domain `prtdiag` command, additional environmental status information will be displayed. If `Control-C` is issued to interrupt the output of this information, the picld(1M) daemon may enter the state in which environmental status information is no longer supplied to `prtdiag`. If it does, additional environmental data will no longer be displayed.	**Note - Fixed in Solaris patch ID 138082-01 or later, and 139502-02 or later.** See "If prtdiag Is Canceled, Subsequent prtdiag Executions May Fail to Display Status Information (CR 6552999, 6731560)" on page 45.

TABLE A-2 Fixed Solaris OS Issues *(Continued)*

CR ID	Description	Workaround
6311743	Systems configured with multiple Ethernet interfaces receiving large quantities of TCP data might exhibit performance degradation with large numbers of connections actively receiving data. However, there is no system failure. This issue will manifest itself on systems with two or more 10 Gbit Ethernet interfaces, or more than 8 Gbit Ethernet interfaces, with workloads receiving high volumes of data over many connections via TCP. In this situation, TCP receive performance will not increase as expected, and above a certain point the overall receive performance will decrease.	**Note - Fixed in Solaris patch ID 141414-07 or later.** Check for the availability of a patch for this defect.

If `prtdiag` Is Canceled, Subsequent `prtdiag` Executions May Fail to Display Status Information (CR 6552999, 6731560)

This issue is resolved with Solaris patch ID 138082-01 or later, and 139502-02 or later.

If the verbose (`-v`) option is specified for the control domain `prtdiag` command, additional environmental status information will be displayed. If `Control-C` is issued to interrupt the output of this information, the picld(1M) daemon may enter the state in which environmental status information is no longer supplied to `prtdiag`. If it does, additional environmental data will no longer be displayed.

Workaround: The following command restarts the picld SMF service. If `prtdiag -v` or `prtpicl` fails to display status information, wait for several minutes, and then retry or restart picl. Execute `prtdiag -v` about 10 minutes after picl is restarted.

- Method 1: restarting picl

```
# svcadm restart picl
Wait for several minutes.
# prtdiag -v
```

- Method 2: stopping and restarting

```
# svcadm disable svc:/system/picl:default
# rm -rf /var/run/picld_door
# svcadm enable svc:/system/picl:default
Wait for several minutes.
# prtdiag -v
```

Firmware and General Software Issues

This section explains the firmware and general software issues that have been fixed.

- "Fixed in System Firmware 7.4.0.b or Later" on page 47
- "Fixed in System Firmware 7.2.11 or Later" on page 47
- "Fixed in System Firmware 7.2.10.a or Later" on page 51
- "Fixed in System Firmware 7.2.10 or Later" on page 53
- "Fixed in System Firmware 7.2.8 or Later" on page 59
- "Fixed in System Firmware 7.2.7.b or Later" on page 61
- "Fixed in System Firmware 7.2.2.e or Later" on page 65
- "Fixed in System Firmware 7.1.8.a or Later" on page 72

Fixed in System Firmware 7.4.0.b or Later

TABLE A-3 Issues Fixed in System Firmware 7.4.0.b or Later

CR ID	Description	Workaround
6983799 6981373 6946636 6913105 6908024	When connected to OS console via ILOM, input or display to console may not be enabled. And at this time, output from Solaris OS to console may fail.	**Note - Fixed in System Firmware 7.4.0.b or later.** After the system stop, disconnect the power cord and then reconnect the power cord.
6983799 6981373 6946636 6908024	The login from SSH client to ILOM fails. Or, you may fail to execute the ILOM command. When this problem occurs, the following problems may occur subsequently. 1. The login from SSH client (Secure Shell) to ILOM fails. 2. The forcible dump order to Solaris OS fails. 3. The power-off order from ILOM fails. 4. The power-on order from ILOM fails. 5. The OS condole can not be obtained. Or, you can not enter anything after entering "y".	**Note - Fixed in System Firmware 7.4.0.b or later.** After the system stop, disconnect the power cord and then reconnect the power cord.
6922544	When the timezone of the ILOM time has been set to other than GMT, if you set the ILOM time and then remove and insert the power cord, the ILOM set time and the Solaris OS startup time may become inaccurate.	**Note - Fixed in System Firmware 7.4.0.b or later.** After you set the ILOM time, perform the ILOM reset before you remove and insert the power cord and start the Solaris OS.

Fixed in System Firmware 7.2.11 or Later

TABLE A-4 Issues Fixed in System Firmware 7.2.11 or Later

CR ID	Description	Workaround
6989852	ILOM firmware falsely recognizes the fan speed as "0" and the Service Required LED may turn on. In that case, ILOM event log is output. For details, see "Service Required LED May Turn On Due To False Recognition of Fan Speed (CR 6989852)" on page 48.	**Note - Fixed in System Firmware 7.2.11 or later.** None. Reset ILOM to recover. If the error is cleared, then it corresponds to this event and the fan replacement is unnecessary. ILOM reset has no impact on the system.

TABLE A-4 Issues Fixed in System Firmware 7.2.11 or Later *(Continued)*

CR ID	Description	Workaround
6962499	After you remove/insert the power cord and while POST is running, the "`/SYS/XXXXX prom is unreadable or corrupted`" message may appear and stop at `ok` prompt. For details, see "After the Power Cord Removal/Insert, an Error Message May Appear during the POST (CR 6962499)" on page 49.	**Note - Fixed in System Firmware 7.2.11 or later.** Take 180 or more seconds for each of the intervals between the system power-off and the power cord removal, and between the removal and insertion of the power cord.

Service Required LED May Turn On Due To False Recognition of Fan Speed (CR 6989852)

This issue is resolved by updating the system firmware to 7.2.11 or later.

ILOM firmware falsely recognizes the fan speed as "0" and the Service Required LED may turn on. In that case, the following event log is output.

The ILOM event log example:

```
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:17 : Fan : /FB0/FM0/F0/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:22 : Fan : /FB0/FM0/F1/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:26 : Fan : /FB0/FM1/F0/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:30 : Fan : /FB0/FM2/F1/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
```

The `showenvironment` command output example:

```
  ----------------------------------------------------------------------
  Fan Status:
  ----------------------------------------------------------------------
  Fans (Speeds Revolution Per Minute):
  Sensor                          Status       Speed     Warn      Low
  ----------------------------------------------------------------------
  /SYS/FANBD0/FM0/F0/TACH         FAILED           0     4000     2400
  /SYS/FANBD0/FM0/F1/TACH         FAILED           0     4000     2400
  /SYS/FANBD0/FM1/F0/TACH         FAILED           0     4000     2400
```

```
/SYS/FANBD0/FM1/F1/TACH        OK            6400      4000      2400
/SYS/FANBD0/FM2/F0/TACH        OK            7000      4000      2400
/SYS/FANBD0/FM2/F1/TACH        FAILED           0      4000      2400
```

The `showfaults` command output example:

```
sc> showfaults
Last POST Run: Mon Jul 12 00:08:46 2010

Post Status: Passed all devices
ID FRU Fault
1 /SYS/FANBD0/FM0 SP detected fault:
   TACH at /SYS/FANBD0/FM0/F0 has reached low non-recoverable threshold.
2 /SYS/FANBD0/FM0 SP detected fault:
  TACH at /SYS/FANBD0/FM0/F1 has reached low non-recoverable threshold.
3 /SYS/FANBD0/FM1 SP detected fault:
  TACH at /SYS/FANBD0/FM1/F0 has reached low non-recoverable threshold.
4 /SYS/FANBD0/FM2 SP detected fault:
  TACH at /SYS/FANBD0/FM2/F1 has reached low non-recoverable threshold.
```

Workaround: None. Reset ILOM to recover. If the error is cleared, then it corresponds to this event and the fan replacement is unnecessary. ILOM reset has no impact on the system.

After the Power Cord Removal/Insert, an Error Message May Appear during the POST (CR 6962499)

This issue is resolved by updating the system firmware to 7.2.11 or later.

After you remove/insert the power cord and while POST is running, the "`/SYS/XXXXX prom is unreadable or corrupted`" message may appear and stop at `ok` prompt.

Message example:

```
Chassis | major: Host has been powered on
0:0:0>
0:0:0>SPARC-Enterprise[TM] T5440 POST 4.30.6 2009/12/01 13:08
     /export/delivery/delivery/4.30/4.30.6/post4.30.6-micro/Niagara/huron/inte
grated  (root)
0:0:0>Copyright 2009 Sun Microsystems, Inc. All rights reserved
0:0:0>POST enabling CMP 0 threads: ffffffff.ffffffff
0:0:0>VBSC mode is: 00000000.00000001
0:0:0>VBSC level is: 00000000.00000001
0:0:0>VBSC selecting Normal mode, MAX Testing.
0:0:0>VBSC setting verbosity level 2
```

```
0:0:0>Basic Memory Tests....Done
0:0:0>Test Memory....Done
0:0:0>Setup POST Mailbox ....Done
0:0:0>Master CPU Tests Basic....Done
0:0:0>Init MMU.....
Fault | critical: SP detected fault at time Mon Jan 18 08:45:10 2010. /SYS/PADCRD
prom is unreadable or corrupted
0:0:0>NCU Setup and PIU link train....Done
0:0:0>L2 Tests....Done
0:0:0>Extended CPU Tests....Done
0:0:0>Scrub Memory....Done
0:0:0>SPU CWQ Tests...Done
0:0:0>MAU Tests...Done
0:0:0>Network Interface Unit Tests....Done
0:0:0>Functional CPU Tests....Done
0:0:0>Extended Memory Tests....Done
2010-01-18 08:46:50.299 0:0:0>INFO:
2010-01-18 08:46:50.302 0:0:0>  POST Passed all devices.
2010-01-18 08:46:50.307 0:0:0>POST:     Return to VBSC.
2010-01-18 08:46:50.310 0:0:0>Master set ACK for vbsc runpost command and
spin...
Chassis | major: Host is running

SPARC Enterprise T5440, No Keyboard
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
OpenBoot 4.30.6, 8064 MB memory available, Serial #85367270.
Ethernet address 0:21:28:16:99:e6, Host ID: 851699e6.

{0} ok
```

This event occurs in case you power off the system and remove the power cord in a short period of time, or in case you remove and insert the power cord in a short period of time. When the above time period is too short, the ILOM internal process does not complete normally.

When this event occurred, perform the following procedure. After you restored using this procedure, you do not need to replace the component.

1. **Turn off the power to the system.**

   Power-off operation example:

   - In case of ALOM CMT compatible shell

     sc> **poweroff -y**

   - In case of ILOM mode

     -> **stop -script /SYS**

2. **Wait for 180 or more seconds.**

3. **Remove the power cord.**

4. **Wait for 180 or more seconds.**

5. **Insert the power cord.**

Workaround: Take 180 or more seconds for each of the intervals between the system power-off and the power cord removal, and between the removal and insertion of the power cord.

Fixed in System Firmware 7.2.10.a or Later

TABLE A-5 Issues Fixed in System Firmware 7.2.10.a or Later

CR ID	Description	Workaround
6979608	On the T5440 server mounted with PSU of a certain version or later, when you power on the system, the ILOM event log indicating the power failure may be collected and be output in the Solaris OS system log (`/var/adm/messages`). For details, see "The ILOM Event Log Indicating Power Failure May Be Collected on the T5440 Server (CR 6979608)" on page 52.	**Note - Fixed in System Firmware 7.2.10.a or later.** None. ILOM firmware's way of referring to the sensor is wrong. This is just an issue of message display at the system start, and this message can be safely ignored.

6948710	With System Firmware 7.2.7.b or later, messages referring to hot insertions/removals of devices (including a nonexistent device) may be displayed intermittently during the system startup and the system running.
	Message example of a nonexistent device:
	`Chassis | major: Hot insertion of /SYS/MB/RISER1/XAUI1`
	`Chassis | major: Hot removal of /SYS/MB/RISER1/XAUI1`
	Message example of an existent device:
	`Chassis | major: Hot removal of /SYS/MB/CMP0/BR1/CH0/D0`
	`Chassis | major: Hot insertion of /SYS/MB/CMP0/BR1/CH0/D0`
		Note - Fixed in System Firmware 7.2.10.a or later.
		None.
		ILOM firmware's way of referring to the sensor is wrong. This has no impact on the system. If no faults are detected by the `show faulty` command, ignore the output messages.

TABLE A-5 Issues Fixed in System Firmware 7.2.10.a or Later *(Continued)*

CR ID	Description	Workaround
6734788 6784914	During the system operation, a panic may occur with the PCIEX-8000-6D message output. This occurs more frequently with a high-load access to the CD/DVD/USB device; however, even if the DVD drive is not used, vold(1M) of Solaris OS is accessing to the DVD drive periodically, and a panic may occur on rare occasions.	**Note - Fixed in System Firmware 7.2.10.a or later.** Use the DVD drive only to install the OS or software or apply a patch or program temporary fix (PTF). And stop vold(1M) if the system is running. Stop of vold(1M) doesn't disrupt the system operation. To stop vold(1M), disable the volfs service, which is a SMF service. # **svcadm disable volfs** To use removable devices such as DVD, execute the following. # **svcadm enable volfs**

The ILOM Event Log Indicating Power Failure May Be Collected on the T5440 Server (CR 6979608)

This issue is resolved by updating the system firmware to 7.2.10.a or later.

On the T5440 server mounted with PSU of a certain version or later (*), when you power on the system, the following ILOM event log indicating the power failure may be collected and be output in the Solaris OS system log (`/var/adm/messages`).

System start completes normally and no LEDs turn on. This is just an issue of message output.

Event log example:

```
Chassis |major  : "/SYS/PSx/STATUS_OK: asserted failure"
Chassis |minor  : "/SYS/PSx/STATUS_OK: reading is OK"
```

(*): To check whether or not the relevant PSU is mounted on your server, use the following command.

[ILOM command]

When referring to the target PSU with `/SYS/PSx` command, check whether the following part number is included in the command output.

```
fru_part_number = 3002249
```

[ALOM CMT compatible shell command]

When referring to the target PSU with `showfru /SYS/PSx` command, check whether the following part number is included in the command output.

```
/Sun_Part_Number_DataR/Sun_Part_No: 3002249
```

Workaround: None. ILOM firmware's way of referring to the sensor is wrong. This is just an issue of message display at the system start, and this message can be safely ignored.

Fixed in System Firmware 7.2.10 or Later

TABLE A-6 Issues Fixed in System Firmware 7.2.10 or Later

CR ID	Description	Workaround
6948680	When you change the system diagnostics settings (`/HOST/diag`) from "Remote Control"-> "Diagnostics" tab in the ILOM Web interface, the value of "`Trigger`" fails to be set with a pop-up message "Error:Invalid property value," if the following value is singly selected for the "`Trigger`". • `Power On` • `User Reset`	**Note - Fixed in System Firmware 7.2.10 or later.** None. Use the `set /HOST/diag trigger=(value)` command from the ILOM CLI interface.
6947945	When you mount a Fujitsu 4Gbps Fibre Channel card and start the system, the 4Gbps Fibre Channel card is falsely recognized as a F20 card in the ILOM CLI interface. Also, the slot number is falsely displayed. In addition, the false recognition and the false display may occur also in the FRU Status of the `prtdiag -v` command output. For details, see "Fujitsu 4Gbps Fibre Channel Card Is Falsely Recognized as F20 Card (CR 6947945)" on page 55.	**Note - Fixed in System Firmware 7.2.10 or later.** None. The newly generated ILOM event log is normally collected. For details, see "Fujitsu 4Gbps Fibre Channel Card Is Falsely Recognized as F20 Card (CR 6947945)" on page 55.

TABLE A-6 Issues Fixed in System Firmware 7.2.10 or Later *(Continued)*

CR ID	Description	Workaround

6946636
6908024
	In the Oracle VM Server for SPARC (the former Logical Domains Manager) environment, in such occasions as you changed the domain configuration, the `ldm add-spconfig` (or `ldm add-config`) command which you execute to save the domain configuration information to ILOM may fail, due to the ILOM memory shortage.
	Failure event example:
	`# ldm add-spconfig config_initial`
	`Error: Operation failed because the system controller ran out of memory. Before being able to save a new configuration, one or more of the existing ones must be deleted.`
		Note - Fixed in System Firmware 7.2.10 or later.
		After the system stop, disconnect the power cord and then reconnect the power cord.

6942238	When you mount a link card connected to PCI box and start the system, the slot number is falsely displayed in the LEDs and FRU Status of the `prtdiag -v` command output. For details, see "Slot Number of Link Card Connected to PCI Box Is Falsely Displayed (CR 6942238)" on page 56.	**Note - Fixed in System Firmware 7.2.10 or later.** None. This can be safely ignored. To check the fibre channel card mount, use IO Devices of the `prtdiag` command of Solaris OS. For details, see "Slot Number of Link Card Connected to PCI Box Is Falsely Displayed (CR 6942238)" on page 56.

6902381	When you powered on the server, all LEDs or all LEDs on the right side on the front panel may light up. When using System Firmware 7.2.2.e or later, the ILOM status check command (the `showenvironment` command) also displays the status of relevant LED being ON; however, this event itself is an issue absolutely limited to the LED display and does not have an effect on the system.	**Note - Fixed in System Firmware 7.2.10 or later.**
		None.
		When this event occurred, perform the ILOM reset operation. If not recovered, shut down the system and then remove and insert the power cord.
		ILOM reset operation example:
		Log in to ILOM and execute the following command.
		[In case of ILOM command mode]
		`-> reset /SP`
		`Are you sure you want to reset /SP (y/n)? y`
		[In case of ALOM CMT compatible shell]
		sc> **resetsc**
		Are you sure you want to reset the SC [y/n]? **y**

Fujitsu 4Gbps Fibre Channel Card Is Falsely Recognized as F20 Card (CR 6947945)

This issue is resolved by updating the system firmware to 7.2.10 or later.

When you mount a Fujitsu 4Gbps Fibre Channel card and start the system, the 4Gbps Fibre Channel card is falsely recognized as a F20 card in the ILOM CLI interface. Also, the slot number is falsely displayed. In addition, the false recognition and the false display may occur also in the FRU Status of the `prtdiag -v` command output.

Shown below is an event example in time of failure.

Configuration:

PCIE#0: Fibre Channel card

PCIE#1: void

PCIE#2: void

PCIE#3: void

PCIE#4: void

PCIE#5: void

The ILOM CLI interface output example:

```
/SYS/MB/RISER1/PCIE1/F20CARD
  Properties:
          type = F20 Card
          ipmi_name = RSR1/PCIE1/F20
          fault_state = OK
          clear_fault_action = (none)
```

FRU Status in the `prtdiag -v` command output:

```
# prtdiag -v
...
============================ FRU Status ============================
Location                              Name      Status
------------------------------------------------------------
...
SYS/MB/RISER1/PCIE1                   F20CARD   enabled
...
```

Workaround: None. This can be safely ignored. To check the fibre channel card mount, use IO Devices of the `prtdiag` command of Solaris OS.

The `prtdiag` command execution result:

```
# prtdiag
...
========================== IO Devices ==========================
Slot +            Bus   Name +                          Model
Status            Type  Path
----------------------------------------------------------------
...
MB                FIBRE fibre-channel
                        /pci@500/pci@0/pci@9/fibre-channel
...
```

Slot Number of Link Card Connected to PCI Box Is Falsely Displayed (CR 6942238)

This issue is resolved by updating the system firmware to 7.2.10 or later.

When you mount a link card connected to PCI box and start the system, the slot number is falsely displayed in the LEDs and FRU Status of the `prtdiag -v` command output.

Shown below is an event example in time of failure.

Configuration:

PCIE#0: void

PCIE#1: void

PCIE#2: void

PCIE#3: void

PCIE#4: void

PCIE#5: Link Card

The ILOM CLI interface output example:

```
/SYS/MB/RISER0/PCIE3/LINK
  Properties:
          type = Link Card
          fru_description = Copper Link Card
          fru_manufacturer = Celestica
          fru_version = 02_51
          fru_part_number = 5017041
          fru_serial_number = XP00DD
          fault_state = OK
          connection = none
          clear_fault_action = (none)
```

LEDs and FRU Status in the `prtdiag -v` command output:

```
# prtdiag -v
...
LEDs:
-------------------------------------------------------
Location                              LED      State
-------------------------------------------------------
...
SYS/MB/RISER0/PCIE3/LINK              DATA     off
SYS/MB/RISER0/PCIE3/LINK              MGMT     off
...
============================ FRU Status ============================
Location                              Name     Status
-------------------------------------------------------
...
SYS/MB/RISER0/PCIE3                   LINK     enabled
...
```

Workaround: None. This can be safely ignored. To check the link card mount, use IO Devices of the `prtdiag` command of Solaris OS.

The `prtdiag` command execution result:

```
# prtdiag
...
========================== IO Devices ==========================
Slot +   Bus   Name +                    Model
Status   Type  Path
-----------------------------------------------------------------
...
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0/FJSV,e4ta@4
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0/FJSV,e4ta@4,1
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0,1/FJSV,e4ta@6
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0,1/FJSV,e4ta@6,1
PCIE5    PCIE  FJSV,e2ta-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@9/pci@0/FJSV,e2ta@4
PCIE5    PCIE  FJSV,e2ta-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@9/pci@0/FJSV,e2ta@4,1
PCIE5    PCIE  FJSV,e4tb-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@2/pci@0
               /FJSV,e4tb@4
PCIE5    PCIE  FJSV,e4tb-fjgi            Broadcom,BCM5715C
```

```
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@2/pci@0
                /FJSV,e4tb@4,1
PCIE5    PCIE   FJSV,e4tb-fjgi            Broadcom,BCM5715C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@4/pci@0
                /FJSV,e4tb@4
PCIE5    PCIE   FJSV,e4tb-fjgi            Broadcom,BCM5715C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@4/pci@0
                /FJSV,e4tb@4,1
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0/FJSV,e4ta@4
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0/FJSV,e4ta@4,1
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0,1/FJSV,e4ta@6
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0,1/FJSV,e4ta@6,1
PCIE5    PCIE   FJSV,e2ta-fjgi            Broadcom,BCM5715C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@9/pci@0/FJSV,e2ta@4
PCIE5    PCIE   FJSV,e2ta-fjgi            Broadcom,BCM5715C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@9/pci@0/FJSV,e2ta@4,1
...
```

Fixed in System Firmware 7.2.8 or Later

TABLE A-7 Issues Fixed in System Firmware 7.2.8 or Later

CR ID	Description	Workaround
6919764	In System Firmware 7.2.7.b, after the power-on of a system mounted with the 4Gbps Fibre Channel card manufactured by Fujitsu, the message "`F20CARD prom is unreadable or corrupted`" may appear in the ILOM event log and the Service Required LED may turn on. Solaris OS completes the startup normally, and the fibre channel card is normally recognized on Solaris OS. For details, see "On a System Mounted with the Fujitsu 4Gbps Fibre Channel Card, the Service Required LED May Turn On after the System Power-on (CR 6919764)" on page 59.	**Note - Fixed in System Firmware 7.2.8 or later.** After you insert the power cord, or after the ILOM reset complete, wait for about 180 seconds and then power on the system.

6908024	On the OS console, data entry may fail. However, display from the OS console can be performed normally.	**Note - Fixed in System Firmware 7.2.8 or later.**
		Perform the ILOM reset operation. If not restored, shut down the system and power on the system again.
		Example of ILOM reset:
		`-> reset /SP`
		`Are you sure you want to reset /SP (y/n)? y`
		`Performing hard reset on /SP`
		
		Example of system power-off and power-on:
		`-> stop /SYS`
		`-> start /SYS`

On a System Mounted with the Fujitsu 4Gbps Fibre Channel Card, the Service Required LED May Turn On after the System Power-on (CR 6919764)

This issue is resolved by updating the system firmware to 7.2.8 or later.

In System Firmware 7.2.7.b, after the power-on of a system mounted with the 4Gbps Fibre Channel card manufactured by Fujitsu, the message "`F20CARD prom is unreadable or corrupted`" may appear in the ILOM event log and the Service Required LED may turn on.

Solaris OS completes the startup normally, and the fibre channel card is normally recognized on Solaris OS.

The `show faulty` command output example:

```
-> show faulty
Target               | Property                | Value
---------------------+-------------------------+---------------------------------
/SP/faultmgmt/0      | fru                     | /SYS
/SP/faultmgmt/0/     | timestamp               | Apr 06 09:41:17
 faults/0            |                         |
/SP/faultmgmt/0/     | sp_detected_fault       | /SYS/MB/RISER0/PCIE3/F20CARD
 faults/0            |                         | prom is unreadable or corrupted

->
```

The ILOM event log output example:

```
15    Tue Apr  6 09:41:17 2010  Fault     Fault     critical
      SP detected fault at time Tue Apr  6 09:41:17 2010. /SYS/MB/RISER0/PCIE3/
      F20CARD prom is unreadable or corrupted
```

When this event occurred, power off the system and then reset the ILOM. After the reset complete, wait for about 180 seconds and then power on the system.

Workaround: After you insert the power cord, or after the ILOM reset complete, wait for about 180 seconds and then power on the system.

Fixed in System Firmware 7.2.7.b or Later

TABLE A-8 Issues Fixed in System Firmware 7.2.7.b or Later

CR ID	Description	Workaround
6857271	During SCC module replacement, part of the data kept on the motherboard is inadvertently overwritten with new SCC module data. This results in a connection failure to the ILOM network. For details, see "After the SCC Module Replacement, a Connection to the ILOM Network May Fail (CR 6857271)" on page 63.	**Note - Fixed in System Firmware 7.2.7.b or later.** If only the SCC module fails, replace the SCC module together with the motherboard. After replacing these components, restore the backed up contents.
6856163	If the service processor is initialized with the LAN cable disconnected from the ILOM network port, the ILOM firmware serial console window displays an error message indicating a failure to start an ILOM internal process. As a result, ILOM fails to start. For details, see "When the Service Processor Is Initialized, ILOM May Fails to Start With an Error Message Displayed (CR 6856163)" on page 64.	**Note - Fixed in System Firmware 7.2.7.b or later.** 1. Disconnect the power cord. 2. Connect the LAN cable to the ILOM network port. 3. Connect the power cord. 4. Verify that the ILOM network port is linked up.
6854379	After the replacement of motherboard, the values for properties stored in the `/HOST/diag` directory may not be carried over, even though system configuration card (SCC module) is moved to the new motherboard.	**Note - Fixed in System Firmware 7.2.7.b or later.** None. Before replacing the motherboard, back up the ILOM settings. After the replacement, restore the backed up settings.

6847308	In the backup of the ILOM settings, when the value of the system identifier property (`/SP system_identifier`) is its default value (`none`), the value of the system description property (`/SP system_description`) will be stored in the backup file.
	Example of erroneously stored data:
	`<entry>`
	`<property>/SP/system_identifier</property>`
	`<value>SPARC-Enterprise-T5440, ILOM v3.0.3.20.e, r46064</value>`
	`</entry>`
		Note - Fixed in System Firmware 7.2.7.b or later.
		None.
		Delete the entry of "`/SP system_identifier`" in the backup file.

6823725	Once you set the `searchpath` property of the DNS client function, you cannot change it back to the default value (`none`).	**Note - Fixed in System Firmware 7.2.7.b or later.** None.

TABLE A-8 Issues Fixed in System Firmware 7.2.7.b or Later *(Continued)*

CR ID	Description	Workaround
6823516	In the DNS client settings, the number of retries (`retries property`) cannot be set to "5."	**Note - Fixed in System Firmware 7.2.7.b or later.** None. Set the integer between "0" and "4" to the number of retries.
6816507	After mounted the 10GbE XAUI card, when you insert the power cord, the component information of the 10GbE XAUI card does not appear on ILOM. ILOM recognized the 10GbE XAUI card.	**Note - Fixed in System Firmware 7.2.7.b or later.** None. To confirm the component information of the 10GbE XAUI card from ILOM, check it after you power on the host.

6737118	When you specified the -u option of the firmware download command (sysfwdownload) which is included in the firmware patch, after the completion of firmware download, system power-off process does not start automatically.
	
	Execution example
	`# ./sysfwdownload -u Sun_System_Firmware-7_1_3_d-SPARC_Enterprise_T5120+T5220.pkg`
	`WARNING: Host will be powered down for automatic firmware update when download is completed. Do you want to continue(yes/no)? yes`
	
	`.......... (7%).......... (15%).......... (23%).......... (31%).......... (39%).......... ...`
	
	`Download completed successfully.`
	
	`#`
	<- After this, the server power-off process does not start.
		Note - Fixed in System Firmware 7.2.7.b or later.
		None.
		Stop Solaris OS and power off the system.

6718696	The memory segment information output from the `prtdiag` command is incorrect for some memory configurations. In particular, the interleave factor, bank size and component modules columns might contain in correct information. The number of segments also might be incorrect. Unfortunately, there is no way to determine if the information is or is not correct.	**Note - Fixed in System Firmware 7.2.7.b or later.** Use the `showfru` and `showcomponent` commands to obtain FB-DIMM information, such as the list of DIMMs present in the system, which might be erroneously reported by the `prtdiag` command.

After the SCC Module Replacement, a Connection to the ILOM Network May Fail (CR 6857271)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

During SCC module replacement, part of the data kept on the motherboard (*1) is inadvertently overwritten with new SCC module data (*2). This results in a connection failure to the ILOM network.

(*1) SCC module data including ILOM user data, network setting data, and diagnostics data. For details, see the ILOM Supplement for each server.

(*2) The data is initialized at this point in time, so the data has no set values.

Also, the following type of log is output (*) to the ILOM serial console window at the occurrence of the failure. sccd fails to start at ILOM startup:

Example of output to ILOM serial console at failure occurrence:

```
SUNSP-BEL07482AU login: root
Password:
Waiting for daemons to initialize...

Timed out waiting for daemons to start     <-- (*2)
sccd daemon has shutdown                   <-- (*2)

Integrated Lights Out Manager

Version 3.0.3.20.e

Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Warning: password is set to factory default.

->
```

Be sure to back up the service processor settings before replacing the SCC module.

Workaround: If only the SCC module fails, replace the SCC module together with the motherboard.

After replacing these components, restore the backed up contents.

When the Service Processor Is Initialized, ILOM May Fails to Start With an Error Message Displayed (CR 6856163)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

If the service processor is initialized (*1) with the LAN cable disconnected from the ILOM network port, the ILOM firmware serial console window displays an error message (*2) indicating a failure to start an ILOM internal process. As a result, ILOM fails to start.

(*1) Service processor initialization has the following meaning:

For ILOM

-> **set /SP reset_to_defaults=all** or **factory**

-> **reset /SP**

For ALOM CMT compatible shell

sc> **setdefaults**

sc> **resetsc**

Example of failure:

```
SUNSP-BEL07482AU login: root
Password:
Waiting for daemons to initialize...

Timed out waiting for daemons to start      <-- (*2)
sccd daemon has shutdown                    <-- (*2)

Integrated Lights Out Manager

Version 3.0.3.20.e

Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Warning: password is set to factory default.

->
```

Workaround: Initialize the service processor with the LAN cable connected to the ILOM network port.

As long as the network port is linked up, the service processor can be initialized, even without ILOM network settings.

If this problem occurs, restore normal system operation by using the following procedure:

1. Disconnect the power cord.
2. Connect the LAN cable to the ILOM network port.
3. Connect the power cord.
4. Verify that the ILOM network port is linked up.

Fixed in System Firmware 7.2.2.e or Later

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later

CR ID	Description	Workaround
6835857	After the system power-on, when Solaris OS started, the "`chip reset error!`" message may appear and Solaris OS may fail to start.	**Note - Fixed in System Firmware 7.2.2.e or later.** Power off the system, wait for about 180 seconds, and then power on the system.
6794672	After the active replacement of PSU of the external I/O expansion unit, even though the fan of the replaced PSU is normal, a fan error is erroneously detected.	**Note - Fixed in System Firmware 7.2.2.e or later.** When this event occurred, execute the ILOM command (`set /SYS/IOX@XX/PSX clear_fault_action=true`) to clear the error information.

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround
6782508	The `/SP/powermgmt/policy` property has been disabled.	**Note - Fixed in System Firmware 7.2.2.e or later.** To `/SP/powermgmt/policy`, the following properties have become available. - `Performance` The system is allowed to use all the power that is available. - `Elastic` The system power usage is adapted to the current utilization level. For example, power up or down just enough system components to keep relative utilization at 70% at all times, even if workload fluctuates. This property is enabled only in the logical domain (LDoms) environment. In case you are not in the logical domain (LDoms) environment, or in case that the logical domain (LDoms) configuration is the factory-default, the property setting is available but cannot utilize its power consumption control function.

6781831	After enabled the NTP function of ILOM firmware, when you power on the host, the Solaris OS time may be lagged compared to the adjusted accurate time of ILOM firmware.
	
	Example of Solaris OS system log when the time went backward for several tens of seconds
	
	`Nov 29 19:59:24 XXX genunix: [ID 904073 kern.notice] done`
	`Nov 29 19:58:23 XXX genunix: [ID 540533 kern.notice] ^MSunOS Release 5.10 Version Generic_137137-0964-bit`
		Note - Fixed in System Firmware 7.2.2.e or later.
		When the Solaris OS time lagged, restore it according to the following steps.
		1. Shut down the system.
		`# shutdown -y -i0 -g0`
		2. Start the system in the single user mode.
		`{0} ok boot -s`
		3. Set the system time.
		`# date` *setting time*
		4. Reboot the system.
		`# shutdown -y -i6 -g0`

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround

6781815	After the ILOM reset or the power cord removal and insertion, when the server powered on, Solaris OS startup at the `ok` prompt of OpenBoot PROM (OBP) using the `boot` command may fail.
	Error output example:
	`{0} ok` **`boot`**
	`ERROR: All device paths in boot-device have failed. (*)`
	`{0} ok`
	It cannot refer to the device paths that configured in the OBP environmental variable boot-device and fails to start Solaris OS.
		Note - Fixed in System Firmware 7.2.2.e or later.
		After the ILOM reset or the power cord removal and insertion, when you power on the server, check the OBP environmental variable. Especially, in case the OBP environmental variable `use-nvramrc?` has been set to `true`, it is necessary in advance of starting the Solaris OS to see the `ok` prompt and check that `use-nvramrc?` has been set to `true` and then execute the `boot` command.
		Confirmation example:
		`{0} ok` **`printenv use-nvramrc?`**
		`use-nvramrc? = true`
		`{0} ok`

6743343	Test Alert generation (alert test transmission) may not be possible, depending on the "Alert Type" and "Event" under the alert rule settings.	**Note - Fixed in System Firmware 7.2.2.e or later.** None.
6738989	The SNMP tab of the ILOM Web interface does not have an item for setting `engineid`.	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the `"set /SP/services/snmp engineid=(value)"` command from the CLI to set `engineid`.
6733632	The ILOM `show -level all/SYS` command does not display information on the `/SYS/MB/SP` level or lower. Neither does the `show -level all/SYS/MB` command display information on the `/SYS/MB/SP` level or lower.	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the `show /SYS/MB/SP` command.
6733492	The following sensor information is not displayed in the ILOM Web interface (System Monitoring tab -> Sensor Reading tab): • `/SYS/PS*/I_AC_LIMIT` • `/SYS/PS*/I_DC_LIMIT` • `/SYS/MB/CPU*/CMP*/BR*/CH*/D*/PRSNT` (Target: Built-in memory)	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the following CLI commands to check the information: • `show /SYS/PS*/I_AC_LIMIT` • `show /SYS/PS*/I_DC_LIMIT` • `show /SYS/MB/CPU*/CMP*/BR*/CH*/D*/PRSNT` (Target: Built-in memory)
6733109	The help information for the `delete` command does not include an entry about the force option. Specifying the -force or -f option will forcibly delete an object from a namespace.	**Note - Fixed in System Firmware 7.2.2.e or later.** None.

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround
6722130	Even though the SSH Server setting was set from "Disabled" to "Enabled" on the "SSH Server" tab of the ILOM Web interface, it remains displayed as "Disabled", but is in fact "Enabled".	**Note - Fixed in System Firmware 7.2.2.e or later.** Click the "Refresh" button in the ILOM Web interface to redisplay the information on the page.
6720583	Even if the Role is changed to Administrator/Operator for "Active directory" in the ILOM Web interface, a blank field is displayed for the Role.	**Note - Fixed in System Firmware 7.2.2.e or later.** Log in to ILOM, and confirm the defaultrole setting for the `/SP/clients/activedirectory`.
6718841	Sun Explorer may fail to collect the ILOM data (Tx000). If failed, it may take more than 30 minutes to return an error.	**Note - Fixed in System Firmware 7.2.2.e or later.** You can collect the ILOM data (Tx000) in another way. For details, see "Sun Explorer May Fail to Collect the ILOM Data (Tx000) (CR 6718841)" on page 69.
6718696	The information displayed by the `prtdiag` command may have abnormalities when memory becomes degraded. For example, it may show a single 4-GB DIMM to be 5.33 GB.	**Note - Fixed in System Firmware 7.2.2.e or later.** None.
6694693	ILOM allows only two privileges: Administrator and Operator. Therefore, the following text about the ALOM CMT `userperm` command in the manual is inappropriate. If one of [c], [u], [a], and [r] is set, Administrator authority will be in effect. If nothing is specified, Operator authority will be in effect. *<Integrated Lights Out Manager 2.0 Supplement>* `userperm [username] [c][u][a][r]`	**Note - Fixed in System Firmware 7.2.2.e or later.** None.
6682500	Applications performing a large amount of virtual disk I/O in an LDOMS guest domain can hang in a state that requires rebooting both the control and guest domains.	**Note - Fixed in System Firmware 7.2.2.e or later.** For details, see "Applications May Hang in a State That Requires Rebooting Both the Control and Guest Domains (CR 6682500)" on page 71.

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround
6586305	Using the SP `setdate` command (ALOM compatibility shell) after having configured non-default logical domains can cause the date on non-default domains to change.	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the `setdate` command to configure the date on the SP before configuring and saving logical domain configurations. If you use `setdate` after non-default logical domain configurations have been saved, each non-default domain must be booted to Solaris OS and the date corrected. (See `date`(1) or `ntpdate`(1M).)
6579390	After disabling a DIMM, the OpenBoot PROM banner does not show a decrease in the amount of memory.	**Note - Fixed in System Firmware 7.2.2.e or later.** If you manually disable any CPU or memory resource with the ASR commands while the host is powered on, you must power cycle the host to complete the disabling of the resource. After the power cycle, the resource will be disabled, and the proper information will be displayed in the banner.

Sun Explorer May Fail to Collect the ILOM Data (Tx000) (CR 6718841)

This issue is resolved by updating the system firmware to 7.2.2.e or later.

Sun Explorer may fail to collect the ILOM data (Tx000).
If failed, it may take more than 30 minutes to return an error.

Workaround: You can collect the ILOM data (Tx000) in another way.

1. Specify the option as follows.

```
# /opt/SUNWexplo/bin/explorer -w !Tx000
```

2. Confirm the version of ILOM.

   Depending on the version of ILOM, the data collection method varies.

   - How to check the version

     - ILOM mode

```
-> version
SP firmware 3.0.3.20.c
            ~ <-- ILOM3.0
```

```
SP firmware build number: 45383
SP firmware date: Tue Jun  2 15:38:58 PDT 2009
SP filesystem version: 0.1.22

->
```

- ALOM mode

```
sc> showsc version
SP firmware version: 3.0.3.20.c
                     ~ <-- ILOM3.0
sc>
```

3. Collect the ILOM data (Tx000).
   - In ILOM 3.0 or later

     In the *Integrated Lights Out Manager (ILOM) 3.0 Concepts Guide*, refer to the "Collect SP Data to Diagnose System Problems" section to collect the SP data information.
   - In ILOM 2.x or earlier

     Collect the ILOM and ALOM data and supply it to service engineers along with the Sun Explorer output.

   a. Collect the following data on ILOM.

      ```
      show /SP/users
      show /SP/users/admin
      show /HOST
      ```

   b. Create an ALOM compatible user and collect the following data on ALOM.

      ```
      consolehistory -v
      showcomponent
      showdate
      showenvironment
      showfaults -v
      showfru
      showhost
      showkeyswitch
      showlogs -v -g 0 -p p
      shownetwork
      showplatform -v
      showsc
      ```

```
showsc version -v
showusers
```

c. Reset ILOM.

```
-> reset /SP
Are you sure you want to reset /SP (y/n)? y
Performing hard reset on /SP
```

Applications May Hang in a State That Requires Rebooting Both the Control and Guest Domains (CR 6682500)

This issue is resolved by updating the system firmware to 7.2.2.e or later.

Applications performing a large amount of virtual disk I/O in an LDoms guest domain can hang in a state that requires rebooting both the control and guest domains.

Workaround:

If your application performs more than 30,000 I/O operations per second, configure the server so that the application performs physical I/O instead of virtual I/O. Do one of the following:

- Run the application in the control domain.
- Export the root nexus containing the disk devices to the guest domain that will be running the application.

If neither of these workarounds is possible, contact your service representative to determine if a patch for this problem is available.

Use the `iostat`(1) command to determine the number of system-wide disk I/O operations-per-second (IOPS). For example:

```
# iostat -x 1 30
```

This produces a line of output per device, every second, for 30 seconds (30 total samples). The sum of reads per second (`r/s`) and writes per second (`w/s`) for each interval provides a system-wide IOPS metric. For example:

```
extended device statistics
device    r/s     w/s   kr/s  kw/s
wait actv svc_t   %w   %b
```

```
md2          0.0     2.0      0.0 12.0
0.0 0.0      31.9    3        4
. . .
```

Disregard the first interval. (This represents metrics since the system was booted.) The columns of interest are the second and third column from the left (`r/s`, `w/s`). Of the remaining 29 intervals, select the interval with the largest number of total IOPS (the sum of `r/s` and `w/s` for all devices) to determine if the application approaches (or exceeds) the 30,000 IOPS threshold

Fixed in System Firmware 7.1.8.a or Later

TABLE A-10 Issues Fixed in System Firmware 7.1.8.a or Later

CR ID	Description	Workaround
6731227	Two circumstances can cause a logical domain to hang when reassigning I/O branches from the primary domain (control domain) to a guest domain (I/O domain): For details, see"A Logical Domain May Hang When Reassigning I/O Branches From the Control Domain to a Guest Domain (CR 6731227)" on page 73.	**Note - Fixed in System Firmware 7.1.8.a or later.** For details, see "A Logical Domain May Hang When Reassigning I/O Branches From the Control Domain to a Guest Domain (CR 6731227)" on page 73.
6731027	Under certain conditions, the system might not power off when the Solaris OS is halted. The system might appear unresponsive in this case with no messages in at the system console or on the SC console.	**Note - Fixed in System Firmware 7.1.8.a or later.** Power off the system using one of the following methods: • The ILOM `stop/SYS` command • The ALOM `poweroff` command
6730610	In certain circumstances you might encounter error messages concerning memory when powering on T5440 server. For details, see "A Memory Error Is Displayed When Powering On the Server (CR 6730610)" on page 75.	**Note - Fixed in System Firmware 7.1.8.a or later.** For details, see "A Memory Error Is Displayed When Powering On the Server (CR 6730610)" on page 75.
6729474	The ILOM browser interface `powercycle` command does not always appear to allow enough time for a graceful system power-off.	**Note - Fixed in System Firmware 7.1.8.a or later.** Check for the availability of a patch for this defect.

TABLE A-10 Issues Fixed in System Firmware 7.1.8.a or Later *(Continued)*

CR ID	Description	Workaround
6692478	Failures may occur in ILOM functions such as user account management if a prohibited character like "#", "+", or ":" is used for the first character of an ILOM user account.	**Note - Fixed in System Firmware 7.1.8.a or later.** None. When the user account can be deleted, the ILOM can be recovered by deleting the user account. When the user can not be deleted, reset the ILOM configuration to factory defaults to recover the ILOM. For the details about procedures and valid characters for ILOM user accounts, see the *Integrated Lights Out Manager 2.0 User's Guide*.
6656116	If the DIMM module fails, the MCU will be disconnected, and an error message might be output to the console. For an example of the message, see "MCU Might Be Disconnected in DIMM Module Failure (CR 6656116)" on page 76.	**Note - Fixed in System Firmware 7.1.8.a or later.** Identify and replace the faulty DIMM module.
6596503	The output of the `prtpicl` command used with the `-v` option might show CPU cores or strands with an OperationalStatus of `enabled` when, in fact, they do not exist.	**Note - Fixed in System Firmware 7.1.8.a or later.** Use the output from the `prtdiag` or `prtpicl -c` cpu commands, which do show the correct information.

A Logical Domain May Hang When Reassigning I/O Branches From the Control Domain to a Guest Domain (CR 6731227)

This issue is resolved by updating the system firmware to 7.1.8.a or later.

Two circumstances can cause a logical domain to hang when reassigning I/O branches from the primary domain (control domain) to a guest domain (I/O domain):

- Case 1

  If you remove an I/O branch from the logical domain configuration of the primary domain and then add the same I/O branch back to the primary domain, upon reboot the system might come back up without any I/O, the system might hang in OpenBoot PROM, or the entire I/O branch and the associated I/O devices might be absent from the primary domain.

  For example, the following actions performed in the sequence shown might lead to the primary domain hanging in OpenBoot PROM:

1. **ldm rm-io pci@500 primary** (Remove pci@500 from the configuration)
2. **ldm rm-io pci@600 primary** (Remove pci@600 from the configuration)
3. **ldm add-io pci@500 primary** (Add pci@500 back to the configuration)
4. **ldm add-config** *config_name* (Save new configuration to SP)
5. clean shutdown and power cycle

- Case 2

  If the you assign I/O branches to guest domains in any order except in numerical order, one or more of the guest domains will be unable to start.

  For example, the following actions performed in the sequence shown might lead to one or more guest domains hanging when they are started:

  1. **ldm add-io pci@600** *guestA*
  2. **ldm add-io pci@500** *guestB*
  3. **ldm add-io pci@700** *guestC*

Workaround: Both situations can be avoided by following these guidelines:

- Case 1

  Do not remove an I/O branch from the primary domain and then immediately add it back to the primary domain.

- Case 2

  Be certain to add the I/O branches to the guest domains in numerical order.

  Example #1: The primary domain is using pci@400 (onboard disks/USB/DVD and slots PCIe0 and PCIe1), and you want to assign pci@500, pci@600, and pci@700 to three guests. Do the following:

  1. **ldm add-io pci@500** *guestB*
  2. **ldm add-io pci@600** *guestA*
  3. **ldm add-io pci@700** *guestC*

  Example #2: The primary domain is using pci@500 (onboard 1Gb/sec and10Gb/sec network, slots PCIE4, PCIE5, XAUI0, XAUI1), and you want to assign pci@400, pci@600, and pci@700 to three guests. Do the following:

  1. **ldm add-io pci@400** *guestB*
  2. **ldm add-io pci@600** *guestA*
  3. **ldm add-io pci@700** *guestC*

If you encounter this hang, you can recover by booting the system with either a prior working configuration or with the factory default configuration. The system can be booted to an earlier working configuration or in the factory default configuration by executing following sequence of commands in the ALOM CLI on the service processor (SP):

1. sc> **bootmode config="***name_of_config***"**
2. sc> **poweron**
3. sc> **poweroff**

The *name_of_config* is the working configuration saved on the service processor. If no such configurations exists on the service processor, use "factory-default" as the name of the configuration.

Note – If the "factory-default" configuration is used in the above procedure then you must reconfigure all of the guest domains and the primary domain.

A Memory Error Is Displayed When Powering On the Server (CR 6730610)

This issue is resolved by updating the system firmware to 7.1.8.a or later.

In certain circumstances you might encounter these error messages when powering on T5440 server:

```
Chassis | major: Jul 27 16:40:17 ERROR: dt_allocprop: prop == NULL:
Not enough memory to expand MD for new property fwd
Chassis | major: Jul 27 16:40:17 ERROR: dt_allocnode: Not enough
memory to expand MD for new node mblock
Chassis | critical: Jul 27 16:41:55 FATAL: The Service Processor
software has taken a FATAL configuration error,
Chassis | critical: the HOST Process cannot be started.
Chassis | critical: Please examine the logs to determine the reason
for failure and then
Chassis | critical: reset the Service Processor
```

This error is encountered when there is a large difference between the amount of memory on the different CMP and memory modules. For example, this could happen if the memory on CMP0+MEM0 added up to 128 Gbytes, but the memory on CMP1+MEM1 were only 16 Gbytes. This situation might happen in two different situations; each situation has its own recovery procedure.

- Case 1 - POST has determined that multiple FBDIMMS have failed on T5440 server with 64 8-Gbyte FB-DIMMS

  If POST takes a FB-DIMM offline, you must replace it immediately. If replacing the failed FB-DIMM is not immediately possible or desired, you must disable the corresponding FBDIMMs on the other CMP/memory modules' corresponding memory branches to guarantee a contiguous memory configuration.

  Type one of the following:

  -> **set /SYS/component component_state=disabled**

  sc> **disablecomponent** *asr-key*

  Type one of the following commands to display a list of enabled and disabled devices:

  -> **show components**

  sc> **showcomponent**

  For each FB-DIMM device that is disabled, disable the corresponding FB-DIMM associated with the other CMP/memory module units. For example, if the following device was disabled:

  /SYS/MB/MEM0/CMP0/BR0/CH0/D1

  Then, disable the following additional devices:

  /SYS/MB/MEM1/CMP1/BR0/CH0/D1

  /SYS/MB/MEM2/CMP2/BR0/CH0/D1

  /SYS/MB/MEM3/CMP3/BR0/CH0/D1

- Case 2 - You have added new FB-DIMM modules to T5440 server and have configured one of the CMP/memory module pairs with significantly more memory than the other modules

  Reallocate the FB-DIMMs across the CMP/memory modules to keep the total number and types of FB-DIMMs the same on each CMP/memory module pair.

MCU Might Be Disconnected in DIMM Module Failure (CR 6656116)

This issue is resolved by updating the system firmware to 7.1.8.a or later.

If the DIMM module fails, the MCU will be disconnected, and the following message might be output to the console.

Message Example:

```
Jun 04 06:11:22: Chassis |major   : "Jun  4 06:11:22 ERROR: MCU2
initialization failed: DRAM init, disabled"
Jun 04 06:11:23: Fault   |critical: "SP detected fault at time Wed
Jun  4 06:11:23 2008. /SYS/MB/CMP0/MCU2 Forced fail (DRAM init)"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR:
MB/CMP0/MCU3 unused because MB/CMP0/MCU2 is not configured"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR:
MB/CMP0/L2_BANK4, MB/CMP0/L2_BANK5 unused because MB/CMP0/MCU2 is
not configured"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR:
MB/CMP0/L2_BANK6, MB/CMP0/L2_BANK7 unused because MB/CMP0/MCU3 is
not configured"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR: Degraded
configuration: system operating at reduced capacity"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR: System
DRAM Available: 002048 MB"
Jun 04 06:11:23: Fault   |critical: "SP detected fault at time Wed
Jun  4 06:11:23 2008. /SYS/MB/CMP0/MCU2 Forced fail (DRAM init)"
```

`showfaults` command output example:

```
Last POST Run: Wed Jun  4 06:14:17 2008
Post Status: Passed all devices
    ID FRU             Fault
    1 /SYS/MB          SP detected fault: /SYS/MB/CMP0/MCU2 Forced
fail (DRAM init)
```

Workaround: Identify and replace the faulty DIMM module.

APPENDIX **B**

Minor Cases

This appendix describes the minor cases concerning the SPARC Enterprise T5440 server. Those cases will not be fixed in the future.

Firmware and General Software Events

TABLE B-1 lists minor events related to the firmware and general software.

TABLE B-1 Firmware and General Software Events

CR ID	Description	Workaround
6952927	In the environment where applied System Firmware 7.2.8 or later, when you restore the ILOM setting and downgrade the firmware version to earlier than 7.2.8, the log output may be limited to part of the past ILOM event log. For details, see "After Downgraded the System Firmware, the Log Output May Be Limited to Part of the Past ILOM Event Log (CR 6952927)" on page 83.	None. The newly generated ILOM event log is normally collected.
6837115	On the ILOM Web interface, when you change the "Alert Management" settings from "Level: minor" and "Type: IPMI PET" to "Type: SNMP Trap," the level setting changes to "disable." The level must be set again.	None.

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround
6835854 6779753	In case that the NET-MGT port of ILOM has not been connected with the LAN cable and the network gateway is not set, the ILOM network configuration cannot be set. For the output example, see "The ILOM Network Configuration Cannot Be Set (CR 6835854, 6779753)" on page 84.	None. Connect the LAN cable to the NET-MGT port of ILOM and then set the network configuration.

6830397	In ILOM3.0, you cannot set "`service`" to the `/HOST/diag mode` property or the `diag_mode` property of the ALOM CMT compatible shell. If you set, it is displayed as "`unknown`."	None.
		The following settings offer the POST diagnosis in a mode equivalent to the "`service`."
		`/HOST/diag mode = normal`
		`/HOST diag level = max`
		`/HOST verbosity = max`

6772876	In certain circumstances, if a disabled CMP module is replaced before the fault is cleared, the replaced CMP module might not be recognized by the system. For example, after replacing CMP1, the ALOM compatibility shell `showcomponent` command might not show the following devices: /SYS/MB/CPU1/CMP1/P0 /SYS/MB/CPU1/CMP1/P1 /SYS/MB/CPU1/CMP1/P2 /SYS/MB/CPU1/CMP1/P3 /SYS/MB/CPU1/CMP1/P4 /SYS/MB/CPU1/CMP1/P5	Reset the service processor after replacing a faulty CMP module. Type: `sc> **resetsc**`
6752910	When a host power-on instruction is executed from ILOM, the POST may not start and the system may proceed to Solaris OS boot processing or the `ok` prompt for OpenBoot PROM. You can restore the system by resetting ILOM.	After turning off the power to the host, wait at least 3 minutes before turning it on again. See "After a Host Power-On Instruction Is Executed from ILOM, the POST May Not Start, and Processing May Not Go to OS Boot Processing or the ok Prompt (CR 6752910)" on page 85.

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround
6739633	When the host is off, any `prepare_to_remove` operation for the component selected in the ILOM Web interface (System Information tab -> Components tab) may cause the radio button of the component to disappear. In the "Ready to Remove Status" column, "NotReady" changes to "Ready (No Power)" for the component, but "`Return to Service`" cannot be performed for the component because the radio button is no longer displayed.	Make the following setting from the CLI: • `set /SYS/(selected-component) return_to_service_action=true`
6739602	If the logdetail property in `/SP/clients/activedirectory` is set to a value other than "none," the following authentication error message may be displayed even if Active Directory is set to disabled (state = disabled): `sc> ActDir | critical: (ActDir) authentication status: auth-ERROR`	If Active Directory is set to disabled, ignore the message.

6738992	The following warning message may be displayed when the Components tab of the ILOM Web interface is opened in Internet Explorer:
	--- 	
	`A script on this page is causing Internet Explorer to run slowly. If it continues to run, your computer may become unresponsive.`
	`Do you want to abort the script?`
	--- 	
	*The actual message may differ.
	For the server with system firmware 7.2.2.e or later, the message may be displayed when "Show Data in a Single Page" is selected or the value set in "Rows Per Page" of "Show Table View Preferences" is too big in the Components tab.
		If you select "Yes", some components will not be displayed.
		Select "No" to display everything.
		For the server with system firmware 7.2.2.e or later, set the smaller value for "Rows Per Page" or select "Show Data in Multiple Pages" in the Components tab.

6738510	Specifying the `-t` option in certain commands (`create`, `delete`, `exit`, `load`, `reset`, `set`, `start`, `stop`, `version`) may cause a forced logout from the ILOM CLI.	None.

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround

6726663	In ILOM mode, or through access to the ILOM Web, it may be possible to change the system time when the system is powered on.	In ILOM mode, be sure not to change the properties displayed below at power on so as not to change the system time directly or enable NTP services.
		`-> show /SP/clock`
		`/SP/clock`
		`Targets:`
		`Properties:`
		`datetime = Wed Dec 3 06:22:48 2008`
		`usentpserver = disabled`
		`Commands:`
		`cd`
		`set`
		`show`
		`->`

6723410	If you repeat in sequence a login to the service processor, executing a command, and logging out, logout may fail.	If this problem occurs, terminate the login session on the client from which you have accessed the service processor.
6682176	In certain conditions, SP command to power cycle host might not work as expected.	If multiple attempts to power cycle the server fail then you can reset the system controller (SC) to recover from this condition. After the SC is reset, SC commands to power cycle the host will work as expected.
6660556	When BUI is used to enable/disable a component, the `/SYS` and `/SYS/MB` fault states appear to be one screen refresh behind the actual state.	Check for the availability of a patch for this defect.
6659980	When you restarted Solaris OS, OpenBoot PROM may output the error message "`ERROR: Unable to disown USB port 3`." For details, see "When You Restarted Solaris OS, OpenBoot PROM May Output the Error Message (CR 6659980)" on page 86.	None. This message has no impact on the system and the USB device, and can be safely ignored.

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround
6587380	The Solaris `prtdiag -v` command displays some sensor indicators that are not voltage indicators under the Voltage Indicators heading. The sensor indicators involved include: SYS/MB I_USB0 ok SYS/MB I_USB1 ok SYS/PSx CUR_FAULT ok SYS/PSx FAN_FAULT ok SYS/PSx TEMP_FAULT ok However, the information reported under the Condition column is accurate and represents the current condition of the components.	Use the Condition column to assess FRU condition.

After Downgraded the System Firmware, the Log Output May Be Limited to Part of the Past ILOM Event Log (CR 6952927)

In the environment where applied System Firmware 7.2.8 or later, when you restore the ILOM setting and downgrade the firmware version to earlier than 7.2.8, the log output may be limited to part of the past ILOM event log.

Event log example:

There supposed to be logs older than ID 4461, which are not displayed.

```
-> show /SP/logs/event/list

 /SP/logs/event/list
    Targets:

    Properties:

    Commands:
        cd
        show

ID        Date/Time                       Class     Type      Severity
-----     ------------------------        --------  --------  --------
4463      Mon Apr  5 06:51:54 2010        Audit     Log       minor
          root : Open Session : object = /session/type : value = shell : success
4462      Mon Apr  5 06:39:11 2010        Audit     Log       major
          Upgrade Succeeded
```

```
4461      Mon Apr  5 06:32:18 2010         Audit     Log       minor
          root : Set : object = /config/load_uri : value =
ftp://root:*****@192.9.2
          00.254/export/LOG/ilom_backup/LE4-3_728.config : success
```

Workaround: None. The newly generated ILOM event log is normally collected.

The ILOM Network Configuration Cannot Be Set (CR 6835854, 6779753)

In case that the NET-MGT port of ILOM has not been connected with the LAN cable and the network gateway is not set, the ILOM network configuration cannot be set.

Output example when the settings cannot be applied:

```
-> set /SP/network/ pendingipdiscovery=static
Set 'pendingipdiscovery' to 'static'

-> set /SP/network/ pendingipaddress=192.9.200.33
Set 'pendingipaddress' to '192.9.200.33'

-> set /SP/network/ pendingipnetmask=255.255.255.0
Set 'pendingipnetmask' to '255.255.255.0'

-> set /SP/network/ commitpending=true
set: Unable to get network management property

->
-> show /SP/network/ -d properties
 /SP/network
 Properties:
 commitpending = (Cannot show property)
 dhcp_server_ip = none
 ipaddress = (none)
 ipdiscovery = (none)
 ipgateway = (none)
 ipnetmask = (none)
 macaddress = (none)
 pendingipaddress = 192.9.200.33
 pendingipdiscovery = static
 pendingipgateway = (none)
 pendingipnetmask = 255.255.255.0
 state = disabled
```

Workaround: None. Connect the LAN cable to the NET-MGT port of ILOM and then set the network configuration.

After a Host Power-On Instruction Is Executed from ILOM, the POST May Not Start, and Processing May Not Go to OS Boot Processing or the `ok` Prompt (CR 6752910)

After a host power-on instruction is executed from ILOM, the POST may not start, and processing may not go to Solaris OS boot processing or the `ok` Prompt for OpenBoot PROM.

[ILOM command interface operation example]

```
-> start /SYS
-> start /SP/console
Are you sure you want to start /SP/console (y/n)? y
Serial console started.  To stop, type #.
```

[ALOM CMT compatibility shell operation example]

```
sc> poweron
sc> console
Enter #. to return to ALOM.
```

Nothing is displayed on the OS console. Entering the escape character "**#.**" restores the ILOM prompt. The result of the Domain Status may vary. No power-on log item as been recorded in the event log.

[`showplatform` command and `showlogs` command domain status reference example]

```
sc> showplatform
SUNW,SPARC-Enterprise-T5440

Domain Status
------ ------
S0 Powered off  * Domain Status : "Powered on", "Powered off", "OpenBoot
initializing", "Unknown" etc.
sc>

sc> showlogs -p p

Log entries since Sep 29 12:45:39
```

```
---------------------------------
Sep 29 12:45:39: Chassis |major   : "Host has been powered on"
Sep 29 12:49:28: Chassis |major   : "Host is running"
Sep 29 12:49:43: Chassis |critical: "Host has been powered off"
Sep 29 12:50:47: Chassis |major   : "Host has been powered on"
Sep 29 12:54:35: Chassis |major   : "Host is running"
Sep 29 12:54:51: Chassis |critical: "Host has been powered off" * There is no
"Host has been powered on." log entry after this.
sc>
```

When You Restarted Solaris OS, OpenBoot PROM May Output the Error Message (CR 6659980)

When you restarted Solaris OS, OpenBoot PROM may output the error message "`ERROR: Unable to disown USB port 3.`"

Event example:

```
# shutdown -i6 -g0 -y

Shutdown started.    Tue Apr 13 16:10:09 JST 2010

Changing to init state 6 - please wait
Broadcast Message from root (console) on xxxxxxx Tue Apr 13 16:10:09...
THE SYSTEM maramba1 IS BEING SHUT DOWN NOW ! ! !
Log off now or risk your files being damaged

# svc.startd: The system is coming down.  Please wait.
svc.startd: 101 system services are now being stopped.
Apr 13 16:10:23 xxxxxxx syslogd: going down on signal 15
svc.startd: The system is down.
syncing file systems... done
rebooting...
Resetting...
ERROR: Unable to disown USB port 3               <--


Txxxx, No Keyboard
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
OpenBoot 4.30.7, 7968 MB memory available, Serial #XXXXXXX.
Ethernet address XX:XX:XX:XX:XX:XX, Host ID: XXXXXXX.



Boot device: disk  File and args:
SunOS Release 5.10 Version Generic_141444-09 64-bit
```

```
Copyright 1983-2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
Hostname: xxxxxxxx
/dev/rdsk/c1t0d0s7 is clean
Reading ZFS config: done.

xxxxxxxx console login:
```

Workaround: None. This message has no impact on the system and the USB device, and can be safely ignored.